ART. X.—Catalogue of the Marine Shells of Victoria.

#### PART V.

# By G. B. PRITCHARD AND J. H. GATLIFF.

[Read 14th November, 1901].

The present paper refers to one hundred and thirty two species contained in the following families:—Cerithiidae (in part), Planaxidae, Litiopidae, Littorinidae, Neritidae, Liotiidae, Cyclostrematidae, Rissoidae, Turbinidae, and Trochidae. The previous papers, Parts I. to IV., dealt with 287 species, so that, with this part, the total number of species now dealt with amounts to 419.

We would take this opportunity of drawing attention to a very useful and valuable paper just published in the July number of this year of the Proceedings of the Malacological Society of London by C. Davies Sherborn, F.Z.S., and B. B. Woodward, F.L.S., on the dates of publication of Kiener's "Species General," etc. We have long felt the want of this piece of work, and are heartily thankful to the authors for their labours. We think it would also be a very good thing if the same reliable workers could be persuaded to undertake a similar task for the different parts of Philippi's Conchylien Cabinet. As an instance of the trouble with this work we might indicate the genus Trochus, which, in the bound copy in the Public Library, Melbourne, is dated on the title page 1846, but some of the parts were evidently later than this, as references are included for descriptions in Zeits, f. Malak., 1848; again, in the case of Trochus ochroleucus there is only the date of the title page as above indicated, but Tryon states the date as after 1853. It seems pretty evident that the paper covers on the separate parts as issued should have been bound up with the parts, in order to preserve the dates of issue, and where this has not been done, trouble has naturally arisen.

For the range of many of our Victorian species along the New South Wales coast, Mr. Hedley's valuable contributions entitled

"Studies on Australian Mollusca," now appearing in the Proceedings of the Linnaean Society of New South Wales, should be consulted.

# Family Cerithidae.

Genus Triforis, Deshayes, em. 1824 (Triphoris).

TRIFORIS ANGASI, Crosse and Fischer.

1865. Triphoris angasi, Crosse and Fischer. Jour. d. Conch., p. 46, pl. 1, f. 12, 13.

1873. Cerithium minimus, Hutton. Cat. N.Z. Moll. p. 27.

1880. Triphoris angasi, Hutton. N.Z. Moll., p. 75.

1887. Triforis angasi, Tryon. Man. Conch., vol. ix., p. 179, pl. 37, f. 93.

Hab. - Coast generally.

Obs.—This is the commonest of our species, and tends to show some variation in its colour markings.

TRIFORIS PFEIFFERI, Crosse and Fischer.

1865. Triphoris pfeifferi, Crosse and Fischer. Jour. d. Conch., p. 47, pl. 1, f. 14, 15.

1887. Triforis pfeifferi, Tryon. Man. Conch., vol. ix., p. 182, pl. 38, f. 9.

Hab.—Western Port; Sorrento; Puebla Coast.

TRIFORIS FASCIATUS, T. Woods.

1879. Triforis fasciata, T. Woods. P.R.S. Tas., p. 34.

1887. Triforis fasciatus, Tryon. Man. Conch., vol. ix., p. 190.

Hab.—Western Port.

TRIFORIS TASMANICA, T. Woods.

1876. Triforis Tasmanica, T. Woods. P.R.S. Tas., p. 28.

1887. Triforis tasmanica, Tryon. Man. Conch., vol. ix., p. 184, pl. 38, f. 31.

Hab.—Western Port; Sorrento; Puebla coast.

Note.—We have at least six other species of this genus as yet undetermined.

# Family Planaxidae.

### Genus Planaxis, Lamarck, 1822.

#### PLANAXIS MOLLIS, Sowerby.

- 1822. Planaxis mollis, Sowerby. Gen. of Shells, vol. ii., pl. 219, f. 2.
- 1822. Buccinum brazilianum, Lamarck. Anim. S. Vert., vol. vii., p. 272.
- 1828. Buccinum laevigatum, Wood. Index Test. sup., p. 13, pl. 4, f. 29a.
- 1839. Planaxis mollis, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 585, No. 6.
- 1842. Planaxis mollis, Reeve. Conch. Syst., vol. ii., p. 238, pl. 270, f. 2.
- 1850. Planaxis pigra, Forbes. P.Z.S. Lond., p. 273, pl. xi., f. 5.
- 1851. Planaxis fulva, A. Adams. P.Z.S. Lond., p. 271.
- 1876. Planaxis brasilianus, Reeve. Conch. Icon., vol. xx., pl. 5, f. 35.
- 1887. Planaxis (Hinea) mollis, Tryon. Man. Conch., vol. ix., p. 279, pl. 52, f. 34, 35.

Hab.—Otway Coast, between Ryan's Den and Moonlight Head (Mr. P. J. Fulton).

# Family LITIOPIDAE.

# Genus Diala, A. Adams, 1861.

# DIALA MONILE, A. Adams.

- 1862. Alaba monile, A. Adams. A.M.N.H., vol. x., 3rd ser., p. 296, No. 17.
- 1875. Diala tesselata, T. Woods. P.R.S. Tas., p. 147.
- 1887. Diala monile, Brazier. T.R.S. S.A., vol. ix., p. 122.
- 1887. Litiopa (Diala) monile, Tryon. Man. Conch., vol. ix., p. 283.
- Hab.—Common in Port Phillip, particularly along the western shores; enormous numbers to be obtained at Port-

arlington, Outer Geelong Harbour, Corio Bay, and Altona Bay. Also from Western Port. Portland (Maplestone).

Obs.—The type of this species was originally obtained from Port Lincoln, South Australia. Professor Tate states that the types are immature and that D. tesselata, T. Woods, better exemplifies the species than the commoner form in South Australian waters.

# DIALA LAUTA, A. Adams.

1862. Diala lauta, A. Adams. A.M.N.H., vol. x., 3rd ser., p. 298, No. 5.

1875. Diala punctata, T. Woods. P.R.S. Tas., pp. 147, 148.

1887. Diala lauta, Brazier. T.R.S. S.A., vol. ix., p. 122.

1887. Litiopa (Diala) lauta, Tryon. Man. Conch., vol. ix., p. 282, pl. 53, f. 83.

Hab.—A common associate with the previous species, especially in Port Phillip and Western Port.

Obs.—The type of this species originally came from Port Adelaide. It is somewhat variable in dimensions and in the depth of the suture.

# DIALA PHASIANELLA, Angas.

1867. Alaba phasianella, Angas. P.Z.S. Lond., p. 113, pl. 13, f. 18.

1886. Alaba (Diala) phasianella, Watson. Chall. Zool., vol. xv., p. 567.

1887. Litiopa (Diala) phasianella, Tryon. Man. Conch., vol. ix., p. 283, pl. 53, f. 84.

Hab.—Western Port.

Obs.—This may only be a thin delicate form of Diala monile, it is a form which we usually obtain in Western Port, where the muddy nature of its habitat may possibly account for its variations, as against the stout robust forms from the more sandy parts of Port Phillip.

# DIALA MAGNA, Tate.

1891. Diala magna, Tate. T.R.S. S.A., vol. xiv., pt. ii., p. 259, pl. 11, f. 9. Hab. - Deep water, Port Phillip Bay (J. B. Wilson).

Obs.—Professor Tate states that this species is at once distinguished by its size, its furrowed suture, and the flat distant ribs on the base, at the same time he notes that its nearest ally is Diala lauta, A. Adams. We must remark that for our own part we feel somewhat dubious about the validity of this species, and are somewhat inclined to regard it as an exceptionally large specimen of Diala lauta.

DIALA PAGODULA, A. Adams.

1862. Alaba pagodula, A. Adams. A.M.N.H., vol x., 3rd ser., p. 297.

1887. Litiopa (Alaba) pagodula, Tryon. Man. Conch., vol. ix., p. 282.

Hab.—Common in Port Phillip.

Obs.—Rissoina St. Clarae, Tenison Woods, P.R.S. Tas., 1877, p. 154, No. 67, is, we think, from the description, the above species; it most certainly is a Diala.

DIALA PULCHRA, A. Adams.

1862. Alaba pulchra, A. Adams. A.M.N.H., vol. x., 3rd ser., p. 296, No. 15.

1887. Litiopa pulchra, Tryon. Man. Conch., vol. ix., p. 282.

Hab.—Port Phillip; Western Port.

Obs.—The type of this species is recorded as from Port Adelaide, and is noted as being a handsomely painted species with the whorls nodosely plicate at the sutures. We have shells which apparently represent this species, but we are much inclined to think it is only a form of D. pagodula, A. Adams, examples of which we have strongly nodosely plicate, at the sutures, faintly nodosely plicate, and some, which appear evidently the same in all other respects entirely without any nodosities.

DIALA VARIA, A. Adams.

 Diala varia, A. Adams. A.M.N.H., vol. viii., 3rd ser., p. 243.

1887. Litiopa varia, Tryon. Man. Conch., vol. ix., p. 282.

Hab.—Western Port; Puebla Coast.

Obs.—This species is run into Alaba semistriata, Philippi, by Tryon, but we are not satisfied that this is correct. The shell we have as representing the above species appears closely related to D. lauta, A. Adams, but is usually a thin translucent dark coloured and smaller form, and may, as a rule, be picked out from small examples of D. lauta. In the original description it is recorded as not uncommon in the Korea and Japan.

### Family LITTORINIDAE.

### Genus Littorina, Férussae, 1821.

### LITTORINA MAURITIANA, Lamarck.

- 1822. Phasianella mauritiana, Lamarck. Anim. S. Vert., vol. vii., p. 51.
- 1827. Litorina unifasciata, Gray. King's Survey of Australia, vol. ii., App. p. 483.
- 1833. Littorina diemenensis, Quoy and Gaimard. Astrolabe, vol. ii., p. 479, pl. 33, f. 8-11.
- 1839. Phasianella mauritiana, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 587, No. 9.
- 1841. Phasianella mauritiana, Delessert. Recueil de Coquilles décrites par Lamarck, pl. 37, f. 14.
- 1843. Phasianella mauritiana, Lamarck. Anim. S. Vert. (ed. Desh.), vol. ix, p. 244, No. 9.
- 1843. Litorina acuta, Menke. Moll. Nov. Holl., p. 9, No. 24.
- 1857. Littorina unifasciata, Reeve. Conch. Icon., vol. x., pl. 17, f. 100.
- 1857. Littorina laevis, Reeve (non Philippi). Id., pl. 17, f. 95.
- 1857. Littorina africana, Reeve (non Philippi). *Id.*, pl. 8, f. 37.
- 1865. Littorina unifasciata, Angas. S.A. Moll., P.Z.S. Lond., p. 172, No. 101.
- 1867. Littorina unifasciata, Angas. Port Jackson Moll., P.Z.S. Lond., p. 209, No. 139.
- 1873. Littorina diemenensis, Hutton. Cat. N.Z. Moll., p. 27.

- 1878. Littorina unifasciata, T. Woods. P.R.S. Tas., 1877, p. 36.
- 1880. Littorina caerulescens, Hutton (non Lamarck). N.Z. Moll., p. 79.
- 1882. Litorina unifasciata, Weinkauff. Conch. Cab. (ed. Küster), p. 97, sp. 111, pl. 14, f. 4.
- 1882. Litorina diemensis, Weinkauff. Conch. Cab. (ed. Küster), p. 18, pl. 2, f. 23, 24.
- 1884. Litorina unifasciata, E. A. Smith. Alert Zeol., p. 60, No. 62.
- 1886. Litorina mauritiana, Watson. Chall. Zool., vol. xv., p. 574, No. 2.
- 1887. Littorina mauritiana, Tryon. Man. Conch., vol. ix., p. 247, pl. 44, f. 71, 72, 73, and 75 (non 70 and 74).
- 1887. Littorina unifasciata, Tryon. Id., p. 247.

Hab.—Coast generally, very common on the rocks at and above high water mark.

# LITTORINA NOVAEZEALANDIAE, Reeve.

- 1857. Littorina novaezealandiae, Reeve. Conch. Icon., vol. x., pl. 14, f. 74.
- 1873. Littorina novaezealandiae, Hutton. Cat. N.Z. Moll., p. 28.
- 1880. Littorina novaezealandiae, Hutton. Man. N.Z. Moll., p. 79.
- 1887. Littorina novaezealandiae, Tryon. Man. Conch., vol. ix., p. 249, pl. 47, f. 76 (non f. 77).

Hab.—Coast generally. Particularly fine examples to be obtained along the Back Beach, Williamstown.

Obs.—This appears undoubtedly to be the name that should be applied to our species, though many mis-identifications have been already made on this form L undulata, T. Woods (non Gray), in the Tasmanian List for 1877, is probably the same as the above. In Mr. Gatliff's List of Victorian Mollusca published in the Victorian Naturalist, 1887, this same species is recorded as L. philippi, Carpenter, on the identification of Mr. Brazier; and in a recent List of Tasmanian Shells by Miss M. Lodder we also note the record of L. philippi, Carpenter.

#### LITTORINA PALUDINELLA, Reeve.

- 1857. Littorina paludinella, Reeve. Conch. Icon., pl. 16, f. 84.
- Littorina paludinella, T. Woods. P.R.S. Tas., for 1877, p. 36.
- 1887. Littorina paludinella, Tryon. Man. Conch., vol. ix., p. 255, pl. 46, f. 36.

Hab.—Port Phillip; Back Beach, Sorrento; Puebla Coast; C. Otway.

Note.—There are two other small species of this genus represented, but, as yet, we have been unable to identify them.

# Genus Risella, Gray, 1840.

### RISELLA MELANOSTOMA, Gmelin.

- 1781. Trochus in fauce nigerrimus, Chemnitz. Conch. Cab., vol. v., pl. 161, f. 1526 a, b.
- 1789. Trochus melanostomus, Gmelin. Syst. Nat., p. 3581, No. 90.
- 1822. Trochus nanus, Lamarck. Anim. S. Vert., vol. vii., p. , No. 67.
- 1834. Trochus auratus, Quoy and Gaimard. Astrolabe, vol. iii., p. 276, pl. 62, f. 15-19.
- 1834. Trochus nanus, Quoy and Gaimard. *Id.*, p. 273, pl. 62, f. 5-7.
- 1834. Trochus planus, Quoy and Gaimard. *Id.*, p. 274, pl. 62, f. 13, 14.
- 1834. Trochus luteus, Quoy and Gaimard. *Id.*, p. 271, pl. 62, f. 8-11.
- 1839. Trochus nanus, Lamarck. Anim. S. Vert., (3rd ed. Deshayes and Edwards), vol. iii., p. 555.
- 1839. Trochus melanostomus, Lamarck. Id., p. 557.
- 1839. Littorina australis, Gray. Beechey's Voy. Zool., p. 141.
- 1841. Trochus nanus, Delessert. Recueil de Coquilles décrites par Lamarck, No. 67, pl. 36, f. 3 a, b, c.
- 1843. Trochus nanus, Lamarck. Anim. S. Vert. (ed. Deshayes), vol. ix., p. 150.
- 1843. Trochus melanostomus, Lamarck. Id., p. 157.

- 1846. Bembicium melanostomum, Philippi. Zeits. f. malak., p. 130.
- 1846. Bembicium nanum, Philippi. Id., p. 131.
- 1846. Bembicium pictum, Philippi. Id., p. 132.
- 1846. Bembicium planum, Philippi. Id., p. 131.
- 1846. Bembicium vittatum, Philippi. Id., p. 131.
- 1858. Risella lutea, H. and A. Adams. Genera, vol. i., p. 318, pl. 33, f. 5.
- 1858. Risella melanostoma, H. and A. Adams. Id., p. 318, pl. 33, f. 5c.
- 1858. Risella nana, H. and A. Adams. Id., p. 318.
- 1858. Risella plana, H. and A. Adams. Id., p. 318.
- 1858. Risella vittata, H. and A. Adams. Id., p. 318.
- 1860. Risella nana, Chenu. Man. de Conch., vol. i., p. 302.
- 1864. Risella melanostoma, Crosse. Jour. de Conch., p. 229, pl. xi., f. 1.
- 1864. Risella aurata, Crosse. Id., p. 233.
- 1864. Risella nana, Crosse. Id., p. 234.
- 1864. Risella plana, Crosse. Id., p. 236, pl. xi., f. 2.
- 1864. Risella bruni, Crosse. *Id.*, p. 239, pl. xi., f. 3.
- 1864. Risella vittata, Crosse. Id., p. 241.
- Risella aurata, T. Woods. P.L.S. N.S.W., vol. i., p. 245.
- 1877. Risella nana, T. Woods. *Id.*, p. 247.
- 1887. Risella lutea, Tryon. Man. Conch., vol. ix., p. 262, pl. 49, f. 3.
- 1887. Risella aurata, Tryon. *Id.*, pl. 49, f. 6.
- 1887. Risella plana, Tryon. *Id.*, pl. 49, f. 10, 11, 12.
- 1887. Risella nana, Tryon. *Id.*, pl. 49, f. 13.
- 1887. Risella melanostoma, Tryon. *Id.*, p. 262.

Hab.—Very common between tide marks on all rocky parts of our coast.

Obs.—Being one of our commonest species, enormous numbers can be very easily collected from various localities for the study of the marked variations shown in the species. The paper given by the Rev. J. E. T. Woods before the Linnean Society of New South Wales in 1876 shows that gentleman to have possessed a clear grasp of the variations existing. There seems very little

doubt but that the most satisfactory treatment is to regard all the forms indicated above as variations of but one species. Although this will no doubt be somewhat perplexing to the young collector at first, he will eventually see the necessity for such treatment as he completes his series. As a rule it is very easy to pick out the form R. nana as a good variety, although the same cannot always be said of the forms under the names of R. aurata and R. plana.

### Genus Fossarina, Adams and Angas, 1863.

#### Fossarina petterdi, Crosse.

- 1870. Fossarina petterdi, Crosse. Jour. de Conch., p.
- Fossarina petterdi, Crosse. Id., p. 323, pl. 12, f. 1. 1871.
- Fossarina simsoni, T. Woods. P.R.S. Tas., pp. 1876. 149, 150.
- Fossarina simsoni, T. Woods. T.R.S. Vic., vol. 1881. xvii., p. 81.
- 1887. Fossarina petterdi, Tryon. Man. Conch., vol. ix., p. 275, pl. 52, f. 20, 21.
- Fossarina simpsoni, Tryon. Id., p. 275. 1887.
- Minos petterdi, Lodder. Cat. Tas. Shells, P.R.S. 1900. Tas., p. 12 (of reprint).

Hab.—Port Phillip; Sandringham; Frankston; Mornington; Sorrento.

Obs.—Tryon misspells T. Woods' species as F. simpsoni, and he also states that Hutton remarks that this species has the dentition and operculum of the Trochidae and not of T. Littorinidae, and that it may possibly be an Adeorbis. Woods himself in the Transactions of the Royal Society of Victoria, after dealing with the description of F. funiculata, states that this shell closely resembles F. simsoni, nobis, which is identical with F. petterdiana, Crosse, a prior name.

# Fossarina brazieri, Angas.

- 1871. Fossarina brazieri, Angas. P.Z.S. Lond., p. 18, pl. 1, f. 24.
- 1881. Fossarina funiculata, T. Woods. T.R.S. Vic., vol. xvii., p. 81. pl. , f. 6, 7.

1887. Fossarina funiculata, Tryon. Man. Conch., vol. ix., pp. 275, 276, pl. 52, f. 18, 19.

Fossarina brazieri, Tryon. Id., p. 275, pl. 52, f. 17. 1887.

1900. Minos funiculata, Lodder. Cat. Tas. Shells, P.R.S. Tas., p. 12 (of reprint).

Hab.—Port Phillip; Frankston; Sorrento.

Obs.—The type of F. funiculata is in the National Museum, Melbourne, and is located in a case of New South Wales shells, but, judging by T. Woods' paper, the shell was collected in Victoria by Mr. J. F. Bailey.

# Family NERITIDAE.

Genus Nerita, Adamson, 1757.

NERITA MELANOTRAGUS, E. A. Smith.

1842. Nerita nigra, Gray (non Chemnitz). In Dieffenbach's New Zealand, vol. ii., p. 240.

1855. Nerita atrata, Reeve (non Chemnitz, nec Deshayes). Conch. Icon., vol. ix., pl. 4, f. 16.

1865. Nerita atrata, Angas. P.Z.S. Lond., p. 175.

1867. Nerita atrata, Angas. Id. p. 212.

1873. Nerita atrata, Hutton. Cat. N.Z. Moll., p. 29.1880. Nerita atrata, Hutton. Man. N.Z. Moll., p. 89.

1883. Nerita atrata, Sowerby. Thes. Conch., pts. 39, 40, p. 110, pl. 465 (3 Gen.), f. 41.

1884. Nerita melanotragus, E. A. Smith. Alert collection Zool., p. 69, No. 82.

Nerita saturata, Hutton. P.L.S. N.S.W., vol. ix., 1884. pt. ii., p. 354.

1886. Nerita punctata, Watson (non Quoy and Gaimard). Chall. Zool., vol. xv., p. 132, No. 4.

1888. Nerita atrata, Tryon. Man. Conch., vol. x., p. 26, pl. 8, f. 40.

1900. Nerita melanotragus, Hedley. P.LS. N.S.W., vol. xxv., pp. 500-502.

Hab.—Coast generally where rocky.

Obs.—This is a very widely distributed species in Australia, and a considerable amount of confusion has existed as to the correct name to be applied to it. Mr. C. Hedley has entered

very fully into this subject recently, and shows that at any rate N. punctata cannot stand for our shell, a conclusion with which we fully agree. Considerable trouble surrounds the names of N. nigra and N. atrata, and the simplest way out of the difficulty was in the introduction of a new name by E. A. Smith as N. melanotragus. The same course suggested itself to Hutton about the same time, and, thanks to Mr. Hedley, it has been shown that Smith's name has priority, its date being 1st August, 1884, whereas Hutton's was August 19th of the same year.

### Family LIOTHDAE.

### Genus Liotia, Gray, 1842.

LIOTIA AUSTRALIS, Kiener.

1839. Delphinula australis, Kiener. Icon. Coq. Viv., vol. x., p. 8, pl. 4, f. 7.

1843. Delphinula australis, Reeve. Conch. Icon., vol. i., pl. 4, f. 20.

1853. Delphinula australis, Kiener. Conch. Cab., Delphinula, p. 18, No. 23, pl. 5, f. 13.

1888. Liotia (Liotina) australis, Tryon. Man. Conch., vol. x., p. 112, pl. 36, f. 18, 19.

1899. Liotia australis, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 225.

Hab.—Port Phillip; Western Port; Puebla Coast; Sorrento, Back Beach; Lorne; Portland.

LIOTIA SUBQUADRATA, T. Woods.

1878. Liotia subquadrata, T. Woods. P.L.S. N.S.W., vol. ii., p. 236.

1899. Liotia subquadrata, Tate. T.R.S. S.A., vol. xxiii., pt. ii., pp. 227, 228.

Hab.—Western Port; Puebla Coast; Apollo Bay; Otway Coast, between Ryan's Den and Moonlight Head (Mr. P. J. Fulton).

Obs.—Professor Tate, at the place above quoted, refers to T. Woods' wrongful identification of a living Tasmanian species with a fossil form from Table Cape under the name of L. lamellosa, and this mistake was rectified by its author in his descrip-

tion of L. subquadrata, but the former authority also includes in his synonymy Cyclostrema immaculata, T. Woods.

LIOTIA TASMANICA, T. Woods.

1865. Liotia siderea, Angas (non Reeve). P.Z.S. Lond., p. 178.

Liotia tasmanica, T. Woods. P.R.S. Tas. for 1875,
 p. 153.

1893. Liotia siderea, Adcock (non Reeve). Hand List Aq. Moll., S.A., p. 7, No. 284.

1895. Liotia tasmanica, Hedley. P.L.S. N.S.W., vol. ix., pp. 464, 465, three figures.

1899. Liotia tasmanica, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p, 226.

Hab.—Flinders, Western Port; Cowes (T. S. Hall). Dredged alive off Rhyll, from about 5 fathoms (Gatliff and Gabriel).

Obs.—Professor Tate, in his remarks on the Australian Liotidae, states that he has satisfied himself that the South Australian shell, under the name of L. siderea, is distinct from Reeve's species by an actual comparison with Reeve's type in the British Museum. Mr. Hedley's fine figures of this species render it easy of identification.

LIOTIA ANNULATA, T. Woods.

1878. Liotia annulata, T. Woods. P.R.S. Tas. for 1877, p. 121.

1884. Liotia compacta, Petterd. Jour. of Conch., Lond., p. 135.

1888. Liotia annulata, Tryon. Man. Conch., vol. x., p. 111, pl. 36, f. 20.

1899. Liotia annulata, Tate. T.R.S. S.A., vol. xxiii., pt. ii, pp. 225, 226, pl. 6, f. 7*a*, 7*b*.

Hab.—Corio Bay (J. Mulder); Port Phillip; Flinders, Western Port.

Obs.—Although the descriptions of the two above species do not exactly agree with one another, Professor Tate seems satisfied that they represent but one species, and as he appears to have had Petterd's type of L. compacta in his possession, and as he also figures the type shell, he should be in the best position to judge.

LIOTIA HEDLEYI, Pritchard and Gatliff.

1899. Liotia hedleyi, Pritchard and Gatliff, P.R.S. Vic., vol. xii., n.s., pt. i, p. 105, pl. 8., f. 8, 9, 10.

Hab.—Flinders, Western Port (J.H.G.); Sorrento; Puebla Coast (G.B.P.).

LIOTIA MAYANA, Tate.

1878. Liotia discoidea, T. Woods (non Reeve). P.R.S. Tas., 1877, p. 39.

1899. Liotia mayana, Tate. T.R.S. S.A., vol. xxiii., pt. 2, p. 227, pl. 6, f. 5*a*-5*c*.

Hab.—Victoria (R. Tate).

Obs.—On this species Professor Tate remarks that in size and general appearance it is similar to L. subquadrata, T. Woods, but its suture is not so excavated, the aperture not so explanulately thickened, and its columella-margin is detached from the umbilical rim. He further makes out a closer affinity for this species with L. clathrata, Reeve, based upon actual comparison with examples of the latter species.

# Family Cyclostrematidae.

Note.—In his recent revision of the Australian Cyclostre-matidae and Liotiidae, Professor Tate remarks that the limits of the genera Cyclostrema and Liotia are not so exact as to permit in all cases of a safe reference to one or the other. The same authority states that "the conchological characters largely relied on for Cyclostrema are a thin vitreous test, entire, simple non-varicosed aperture, and a multi-spiral operculum. For Liotia, a stout perlaceous test, last whorl descending at the front, aperture variced and entire, operculum spiral and covered with calcareous granules." Hence we have Liotia angasi, Crosse, Liotia lodderae, Petterd, and Liotia minima, T. Woods, referred to the above family Cyclostrematidae, the first being referred to under the generic title of Pseudoliotia, and the second and third under the generic name of Lodderia.

# Genus Cyclostrema, Marryatt, 1818.

CYCLOSTREMA CAPERATUM, Tate.

1899. Cyclostrema caperatum, Tate. T.R.S. S.A., vol. xxiii., pt. ii., pp. 216, 217, pl. 7, f. 1*a*, 1*b*.

Hab.—Lakes Entrance, Gippsland, in shell sand (Dr. Pulleine). Obs.—Mr. C. Hedley refers this species to the section Solari-

orbis of Teinostoma, as defined by Dall. Professor Tate himself indicates that he is not satisfied that the above shell belongs even to the Cyclostrematidae, let alone the genus Cyclostrema.

#### CYCLOSTREMA BRUNIENSIS, Beddome.

1883. Cyclostrema bruniensis, Beddome. P.R.S. Tas., 1882, p. 168.

1899. Skenea (?) brunniensis, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 224.

Hab.—Western Port; Sorrento, Port Phillip.

Obs.—Professor Tate remarks that he has received an authentic example of Beddome's species from Mr. May, of Tasmania, that he does not think it has the aspect of a Cyclostrema, but that he is unable to locate it generically. This species was identified for Mr. Gatliff by the late Mr. C. E. Beddome.

### CYCLOSTREMA WELDH, T. Woods.

1877. Cyclostrema weldii, T. Woods. P.R.S. Tas., 1876, p. 147.

1877. Cyclostrema susonis, T. Woods. Id., p. 147.

1877. Cirsonella australis, Angas, P.Z.S. Lond., p. 38, f. 16.

1888. Cyclostrema (Tubiola) weldii, Tryon. Man. Conch., vol. x., p. 95, pl. 33, f. 11.

1888. Cyclostrema (Tubiola) susonis, Tryon. *Id.*, p. 95, pl. 33, f. 10.

1888. Teinostoma (Cirsonella) australis, Tryon. *Id.*, p. 107, pl. 35, f. 83, 84.

1899. Cyclostrema australe, Tate. T.R.S. S.A., vol. xxiii., pt. ii., pp. 219-221.

Hab.—Sorrento, Port Phillip; Western Port.

Obs.—Professor Tate enters fully into the discussion of the identity of the above species in his revision, but gives, apparently on insufficient grounds, priority to the name applied by Angas; T. Woods' paper being read in August, 1876, while the volume containing it did not appear till 1877.

CYCLOSTREMA ANGELI, T. Woods.

1877. Rissoa angeli, T. Woods. P.R.S. Tas., for 1876, pp. 153, 154.

1878. Rissoa angeli, T. Woods, Id., for 1877, p. 122.

1899. Cyclostrema (Tubiola) angeli, Tate. T.R.S. S.A., vol. xxiii., pt. ii., pp. 218, 219.

Hab.—Western Port.

Obs.—The shell from Tasmania figured and mentioned in Tryon as Rissoa angeli, T. Woods, is not that species, as has already been pointed out by Professor Tate. The latter describes and figures this other species under the name of Cyclostrema crebresculptum, a species which we have not as yet collected from our shores.

CYCLOSTREMA CONTABULATUM, Tate.

1899. Cyclostrema contabulatum, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 222, pl. 7, f. 6.

Hab.—Western Port.

Obs.—Professor Tate remarks that this species is related to C. micron, but is narrowly umbilicated, and the whorls are shouldered. Our representatives of this species are not quite typical, in that the shouldering of the whorl is not distinct, but Professor Tate himself regards our shells as a variation of his species.

Cyclostrema harriettae, Petterd.

1884. Cyclostrema harriettae, Petterd. Jour. of Conch., p. 141, No. 24.

1899. Cyclostrema harriettae, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 215.

Hab.—Western Port; Sorrento; Puebla Coast.

CYCLOSTREMA CHAROPA, Tate.

1884. Cyclostrema micra, Petterd (non Woods, 1877). Jour. of Conch., p. 139.

1899. Cyclostrema charopa, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 217, pl. 7, f. 2a-2c.

Hab.—Dredged of Rhyll, Western Port.

Obs.—Tate records this species from South Australia and Tasmania, and states that he has compared his figured example,

which was obtained from Tasmania, with Mr. Petterd's type, and though a little larger he regards them as conspecific.

# CYCLOSTREMA MAYII, Tate.

1899. Cyclostrema mayii, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 218, pl. 6, f. 4*a*-4*c*.

Hab. - Dredged off Rhyll, Western Port.

Obs.—The type of this species was obtained in Tasmania.

### CYCLOSTREMA MICRA, T. Woods.

1877. Cyclostrema micra, T. Woods. P.R.S. Tas., p. 147.

1888. Cyclostrema (Tubiola) micra, Tryon. Man. Conch., vol. x., p. 95, pl. 33, f. 13.

1899. Cyclostrema micron, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 221.

Hab.—Dredged off Rhyll, Western Port.

Note.—There are two additional unidentified species of this genus.

### Genus Lodderia, Tate, 1899.

# LODDERIA LODDERAE, Petterd.

1884. Liotia lodderae, Petterd. Jour. of Conch., Lond., p. 135, No. 2.

1899. Liotia lodderae, Hedley. P.L.S. N.S.W., vol. xxiii., p. 802, three figures.

1899. Lodderia lodderae, Tate. T.R.S. S.A., vol. xxiii., pt. ii., p. 222.

Hab.—Flinders, Western Port; Puebla Coast.

# LODDERIA MINIMA, T. Woods.

1878. Liotia minima, T. Woods. T.R.S. Vic., vol. xiv., p. 58.

1899. Lodderia minima, Tate. T.R S. S.A., vol. xxiii., pt. ii., p. 222.

Hab.—Brighton, Port Phillip; Western Port.

Obs.—The type of this species is in the National Museum, Melbourne, and on its label is indicated as having been found at Brighton.

# Genus Pseudoliotia, Tate, 1898.

PSEUDOLIOTIA MICANS, A. Adams.

- 1850. Cyclostrema micans, A. Adams. P.Z.S. Lond., p. 43.
- 1864. Cyclostrema micans, Sowerby. Thes. Conch., p. 250, pl. 255, f. 7, 8, 27.
- 1864. Liotia angasi, Crosse. Jour. de Conch., p. 343, pl. 13, f. 4.
- Liotia speciosa, Angas. P.Z.S. Lond., p. 19, pl. 1, f. 26.
- 1874. Cyclostrema micans, Reeve. Conch. Icon., vol. xix., pl. 2, f. 9.
- 1874. Liotia gowllandi, Brazier. P.Z.S. Lond., p. 672, pl. 83, f. 1, 2.
- 1888. Cyclostrema micans, Tryon. Man. Conch., vol. x., p. 88, pl. 31, f. 17, 18.
- 1888. Liotia angasi, Tryon. Id., p. 110, pl. 36, f. 4
- 1888. Liotia speciosa, Tryon. Id., p. 110, pl. 36, f. 5.
- 1888. Liotia gowllandi, Tryon. Id., p. 110, pl. 36, f. 7, 8.
- 1897. Cyclostrema micans, Tate. T.R.S. S.A., vol. xxi., p. 43.
- 1898. Cyclostrema micans, var. gracilior, Tate. Id., vol. xxii., p. 71.
- 1899. Pseudoliotia micans, Tate. *Id.*, vol. xxiii., pp. 222, 223.
- 1899. Pseudoliotia micans, var. gowllandi, Tate. *Id.*, p. 223.

Hab.—Hobson's Bay (Nat. Mus.); St. Kilda, Sandringham, Sorrento, Port Phillip; Flinders, Western Port.

Obs.—Professor Tate appears to accept Pseudoliotia gowllandi as a good variety of this species, and records it from Western Port. He remarks that it is a micromorph with only two keels on the upper portion of the body whorl, with a tendency to fusion of the two peripheral keels and to obliteration of the basal rib.

# Family RISSOIDAE.

Genus Rissoa, Fréminville, 1814.

RISSOA SALEBROSA, Frauenfeld.

1867. Rissoa salebrosa, Frauenfeld. Novara, p. 11, pl. 2, f. 15.

1887. Rissoia salebrosa, Tryon. Man. Conch., vol. ix., p. 327, pl. 66, f. 44.

1899. Rissoia salebrosa, Tate. T.R.S. S.A., vol. xxiii., p. 232.

Hab.—Western Port.

#### RISSOA INCIDATA, Frauenfeld.

1867. Rissoa incidata, Frauenfeld. Novara, p. 13, pl. 1, f. 19.

1887. Rissoia (Sabanaea) incidata, Tryon. Man. Conch., vol. ix., p. 339, pl. 63, f. 65.

1899. Rissoia (Sabanaea) incidata, Tate. T.R.S. S.A., vol. xxiii., p. 232.

Hab.—Western Port; Puebla Coast.

# RISSOA BICOLOR, Petterd.

1884. Rissoa bicolor, Petterd. Jour. of Conch., Lond., vol. iv., No. 5, p. 137, No. 10.

1899. Rissoia (Sabanaea) bicolor, Tate. T.R.S. S.A., vol. xxiii., p. 232.

Hab.—Portsea, Port Phillip.

Obs.—Our representatives of this species from the above locality are narrower and more elongate than the usual Tasmanian form.

# RISSOA OLIVACEA, Dunker.

1867. Rissoa olivacea, Dunker. Novara, p. 11, pl. 2, f. 14.

1884. Rissoa diemenensis, Petterd. Jour. of Conch., Lond., vol. iv., No. 5, p. 138, No. 13.

1887. Rissoia (Amphithalamus) olivacea, Tryon. Man. Conch., vol. ix., p. 339, pl. 66, f. 43.

1899. Rissoia (Amphithalamus) olivacea, Tate. T.R.S. S.A., vol. xxiii., p. 232.

Hab.—Sorrento, Port Phillip; Puebla Coast.

# RISSOA PETTERDI, Brazier.

1884. Rissoa pulchella, Petterd (non Risso, 1826). Jour. of Coneh., Lond., vol. iv., p. 138, No. 14.

1894. Rissoia (Amphithalamus) Petterdi, Brazier. P.L.S. N.S.W., p. 697.

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1899. Rissoia (Amphithalamus) petterdi, Tate. T.R.S. S.A., vol. xxiii., p. 232.

Hab.—Western Port; Sorrento, Portsea, Port Phillip; Puebla Coast.

RISSOA CYCLOSTOMA, T. Woods.

1877. Rissoa cyclostoma, T. Woods. P.R.S. Tas., p. 153, No. 60.

1887. Rissoia (Cingula) cyclostoma, Tryon. Man. Conch., vol. ix., p. 344, pl. 71, f. 8.

1899. Rissoia (Amphithalamus) cyclostoma, Tate. T.R.S. S.A., vol. xxiii., pp. 232, 233.

Hab.—Western Port; Cape Schanck; Sorrento, Port Phillip; Puebla Coast.

RISSOA WOODSI, nom. mut.

1877. Rissoa cyclostoma, rar. rosea, T. Woods (non Deshayes, nec Hutton). P.R.S. Tas., p. 154.

Hab.—Western Port; Port Phillip; Puebla.

Obs.—We regard this as a distinct species, and as Rissoa rosea cannot be accepted, as it is already twice pre-occupied, in the first place by Deshayes in 1863, and subsequently by Hutton in 1873, we propose to call it Rissoa woodsi.

RISSOA VERCONIS, Tate.

1884. Rissoa badia, Petterd (non Adams, 1861). Jour. of Conch., Lond., vol. iv., p. 138, No. 12.

1899. Rissoia (Amphithalamus) verconis, Tate. T.R.S. S.A., vol. xxiii., p. 233.

Hab.—Western Port; Puebla Coast.

RISSOA CONTABULATA, Frauenfeld.

1867. Rissoa (Anabathron) contabulata, Frauenfeld. Novara, p. 13, pl. 2, f. 20*a*.

1887. Rissoia (Anabathron) contabulata, Tryon. Man. Conch., vol. ix., p. 341, pl. 69, f. 51.

1899. Rissoia (Anabathron) contabulata, Tate. T.R.S. S.A., vol. xxiii., p. 233.

Hab.—Flinders, Cowes, Western Port; Sorrento, Port Phillip. Obs.—Figure 20b of Frauenfeld and figure 50 of Tryon apparently represent a distinct species.

#### RISSOA TENISONI, Tate.

1876. Cingulina australis, T. Woods (non G. B. Sowerby). P.R.S. Tas., p. 146.

1878. Rissoa (Cingulina) australis, T. Woods. Id., p. 151.

1898. Rissoa (Onoba) australis, Suter. Proc. Malac. Soc., p. 4.

1899. Rissoia (Onoba) tenisoni, Tate. T.R.S. S.A., vol. xxiii., pp. 233, 234.

1900. Rissoa tenisoni, Hedley. P.L.S. N.S.W., vol. xxv., pt. iii., p. 505, pl. 25, f. 4.

Hab.—Coast generally.

Obs.—This is our commonest species of this genus, and is very easily recognised, being a small white shell with strong spiral ridges. It has been figured for the first time only recently by Mr. C. Hedley.

#### RISSOA ATKINSONI, T. Woods.

1877. Rissoa (Cingula) atkinsoni, T. Woods. P.R.S. Tas., p. 153.

1887. Rissoia (Microsetia) atkinsoni, Tryon. Man. Conch., vol. ix., p. 354, pl. 71, f. 10.

1889. Rissoia (Setia) atkinsoni, Tate. T.R.S. S.A., vol. xxiii., p. 234,

Hab.—Dredged off Rhyll, Western Port; Puebla coast.

# RISSOA ATROPURPUREA, Dunker.

1867. Rissoa atropurpurea, Dunker. Novara, p. 13, pl. 2, f. 21.

1887. Rissoia (Microsetia) atropurpurea, Tryon. Man. Conch., vol. ix., p. 355, pl. 71, f. 1.

1889. Rissoia (Setia) atropurpurea, Tate. T.R.S. S.A., vol. xxiii., p. 234.

Hab.—Dredged off Rhyll, Western Port.

# Rissoa nitens, Dunker.

1867. Rissoa nitens, Dunker. Novara, p. 13, pl. 2, f. 22.

1887. Rissoia (Microsetia) nitens, Tryon. Man. Conch., vol. ix., p. 355, pl. 71, f. 100.

1889. Rissoia (Setia) nitens, Tate. T.R.S. S.A., vol. xxiii., p. 234.

Hab.—Dredged off Rhyll, Western Port.

Rissoa sopihae, Brazier.

1882. Rissoa (Setia) flamia, Beddome. P.R.S. Tas., p. 169, No. 16.

1883. Rissoia (Setia) sophiae, Brazier, mss.

1887. Rissoia (Setia) flamia, Tryon. Man. Conch., vol. ix., p. 359.

1894. Rissoia (Setia) sophiae, Henn and Brazier. P.L.S. N.S.W., vol. ix., 2nd ser., p. 174, No. 74.

1895. Rissoia (Setia) flamia, Brazier. Id., p. 697.

1899. Rissoia (Setia) beddomei, Tate. T.R.S. S.A., vol. xxiii., p. 234.

Hab.—Western Port.

Obs.—Brazier, in the Proceedings of the Linnean Society of New South Wales, volume ix., n.s., p. 698, states that this is "a minute turbinated shell, white, with red diagonal flames, and about one of the most common species we have. A large number were sent to Mr. Angas as far back as 1876, with other species; about the time I named this in MS. I received sea-worn specimens from Mr. Petterd; having Mr. Beddome's types before me the matter is now at rest." That is, Brazier was satisfied to drop his name and accept Beddome's. Professor Tate regards Beddome's name as an orthographical blunder, and apparently thinks it should have been spelt flammea. On referring to Beddome's paper, it may be readily noticed that there are several printers' errors, apparently showing that the proof-sheets were never corrected, and, in view of this, it seems very likely that flammea may have been meant. If this be so, it is then found that R. flammea has already been pre-occupied by Dunker in 1866, and Professor Tate has proposed the new name of R. beddomei. It seems to us, however, that if flamia cannot be accepted as a name for this species, the name that should stand would be R. sophiae, Brazier.

# RISSOA MELANOCHROMA, Tate.

1877. Rissoa melanura, T. Woods (non Adams, 1850). P.R.S. Tas., p. 153, No. 62.

1887. Rissoia (Cingulina) melanura, Tryon. Man. Conch., vol. ix., p. 358, pl. 71, f. 7.

1899. Rissoia (Cingulina) melanochroma, Tate. T.R.S. S.A., vol. xxiii., p. 234.

Hab.—Flinders, Cowes, Western Port; Sorrento, Port Phillip.

#### RISSOA HULLIANA, Tate.

1876. Dunkeria fasciata, T. Woods (non Requien, 1848). P.R.S. Tas., p. 146.

1877. Rissoa (Alvania) fasciata, T. Woods. Id., p. 152.

1893. Rissoa (Alvania) hullii, Tate. Adcock's Hand List of S.A. Moll., p. 7.

1899. Rissoia (Alvania) hulliana, Tate. T.R.S. S.A., vol. xxiii., p. 235.

Hab.—Fairly common, Port Phillip and Western Port, also well distributed along the coast.

### Rissoa strangei, Brazier.

1884. Rissoa lineata, Petterd (non Risso, 1826). Jour. of Conch., Lond., vol. iv., p. 137, No. 8.

1894. Rissoia (Apicularia) strangei, Brazier. P.L.S. N.S.W., vol. ix., p. 173, pl. 14, f. 11.

1895. Rissoia (Apicularia) strangei, Brazier. *Id.*, p. 695.

1899. Rissoia (Alvania), strangei, Tate. T.R.S. S.A., vol. xxiii., p. 235.

Hab.—Western Port; Puebla coast.

# RISSOA CHEILOSTOMA, T. Woods.

1873. Rissoa plicata, Hutton (non Deshayes, 1838). Cat. N.Z. Moll., p. 29.

1877. Rissoa (Alvania?) cheilostoma, T. Woods. P.R.S. Tas., p. 152, No. 58.

1877. Alvania elegans, Angas (non Adams, 1851).
 P.Z.S. Lond., p. 174, pl. 26, f. 15.

1878. Rissoa (Oina) australis, Sowerby. Reeve Conch. Icon., vol. xx., pl. 13, f. 123.

1880. Rissoina plicata, Hutton. Man. N.Z. Moll., p. 80.

1885. Eglisia plicata, Hutton. P.L.S. N.S.W., vol. ix., p. 939.

1887. Rissoia (Alvania) cheilostoma, Tryon. Man. Conch., vol. ix., pp. 366, 392, pl. 68, f. 91.

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1887. Rissoia (Alvania) elegans, Tryon. *Id.*, p. 364, pl. 66, f. 46.

1898. Rissoia (Alvinia) plicata, Suter. Proc. Malac. Soc. Lond., vol. iii., p. 6.

1899. Rissoia (Alvinia) cheilostoma, Tate. T.R.S. S.A., vol. xxiii., p. 235, 236.

Hab.—Port Phillip; Western Port.

RISSOA PEREXIGUA, Tate and May.

1878. Rissoina minutissima, T. Woods (non Michelin). P.R.S. Tas., p. 122.

1900. Rissoia perexigua, Tate and May. T.R.S. S.A., vol. xxiv., p. 100.

Hab.—Western Port.

Obs.—This species was identified for us by Mr. May, who stated that he had examined T. Woods' type in the Hobart Museum.

RISSOA MARIAE, T. Woods.

1876. Rissoa (Cingula) mariae, T. Woods. P.R.S. Tas., p. 147.

1887. Rissoia (Microsetia) mariae, Tryon. Man. Conch., vol. ix., p. 354, pl. 71, f. 9.

Hab.—Western Port; Cape Schanck; Port Phillip; Puebla Coast.

Obs.—Professor Tate in his paper on the Rissoidae, 1899, excludes this species, as he regards it as Diala varia. We do not agree with him.

RISSOA TASMANICA, T. Woods.

1876. Eulima tasmanica, T. Woods. P.R.S. Tas., p. 29. Hab.—Port Fairy.

Obs.—T. Woods states that he only doubtfully refers this species to Eulima. We have a shell from Port Fairy which appears to answer well to T. Woods' description, but we prefer to regard it as a Rissoa.

RISSOA APPROXIMA, Petterd.

1884. Rissoa approxima, Petterd. Jour. of Conch., Lond., vol. iv., p. 138, No. 11. 1899. Rissoia (Microsetia) approxima, Tate. T.R.S. S.A., vol. xxiii., p. 234.

Hab.—Western Port.

Rissoa simsoni, Tate and May.

1900. Rissoia (Amphithalamus) simsoni, Tate and May. T.R.S. S.A., vol. xxiv., p. 100.

Hab.—Port Fairy (Rev. T. Whan).

Note.—We have at least eight unidentified species of Rissoas, about which we hope to be able shortly to give some account.

# Génus Rissoina, d'Orbigny, 1840.

RISSOINA GERTRUDIS, T. Woods.

1876. Rissoina gertrudis, T. Woods. P.R.S. Tas., p. 146.

1887. Rissoina gertrudae, Tryon. Man. Conch., vol. ix., p. 372, pl. 55, f. 39.

1899. Rissoina gertrudis, Tate. T.R.S. S.A., vol. xxiii., p. 237.

Hab.—Victoria (Tate).

RISSOINA HANLEYI, Schwartz.

1860. Rissoina hanleyi, Schwartz. Familie Rissoiden, p. 64, pl. 4, f. 28.

1887. Rissoina hanleyi, Tryon. Man. Conch., vol. ix., p. 370, pl. 55, f. 21.

1899. Rissoina hanleyi, Tate. T.R.S. S.A., vol. xxiii., p. 237.

Hab.—Victoria (Tate).

RISSOINA NIVEA, A. Adams.

1851. Rissoina nivea, A. Adams: P.Z.S. Lond., p. 265.

1880. Rissoina lirata, Angas. P.Z.S. Lond., p. 417, pl. 40, f. 11.

1887. Rissoina lirata, Tryon. Man. Conch., vol. ix., p. 373, pl. 54, f. 10.

1887. Rissoina (Schwartziella) nivea, Tryon. *Id.*, p. 379, pl. 55, f. 24.

1899. Rissoina nivea, Tate. T.R S. S.A., vol. xxiii., pp. 237, 239, 240.

Hab.—Victoria (Tate)

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### RISSOINA D'ORBIGNYI, A. Adams.

1851. Rissoina d'orbignyi, A. Adams. P.Z.S. Lond., p. 265.

1878. Rissoa d'orbignyana, Reeve. Conch. Icon., vol. xx., pl. 1., f. 7.

1887. Rissoina (Morchiella) spirata, Tryon (non Sowerby). Man. Conch., vol. ix., p. 388, pl. 58, f. 28.

1889. Rissoina spirata, Tate (non Sowerby). T.R.S. S.A., pp. 237, 239, 240.

Hab.—A common species, generally distributed.

#### RISSOINA VARIEGATA, Angas.

 Rissoa variegata, Angas. P.Z.S. Lond., p. 113, pl. 13, f. 19.

1878. Rissoa variegata, Reeve. Conch. Icon., vol. xx., pl. 8, f. 64.

1887. Rissoina variegata, Tryon. Man. Conch., vol. ix., p. 370, pl. 56, f. 43-46.

1899. Rissoina variegata, Tate. T.R.S. S.A., vol. xxiii., p. 237.

Hab.—Point Roadknight.

# RISSOINA ELEGANTULA, Angas.

1880. Rissoina elegantula, Angas. P.Z.S. Lond., p, 417, pl. 40, f. 10.

1887. Rissoina striata, Tryon (non Quoy and Gaimard).
Man. Conch., vol. ix., p. 385, pl. 58, f. 13.

1899. Rissoina (Zebinella) elegantula, Tate. T.R.S. S.A., vol. xxiii., pp. 238, 242.

Hab.—Port Phillip; Western Port; Barwon Heads; Puebla Coast.

# Rissoina crassa, Angas.

1871. Rissoina crassa, Angas. P.Z.S. Lond., p. 17, pl. 1, f. 16.

1878. Rissoa crassa, Reeve. Conch. Icon., vol. xx., pl. 8, f. 70.

1887. Rissoina (Rissolina) rissoi, Tryon (non Audouin).

Man. Conch., vol. ix., p. 378, pl. 55, f. 20, and pl. 68, f. 6.

1899. Rissoina (Rissolina) crassa, Tate. T.R.S. S.A., vol. xxiii., pp. 238, 243.

Hab.—Western Port; Puebla Coast.

### RISSOINA FLEXUOSA, Gould.

- 1861. Rissoina flexuosa, Gould. Proc. Boston Soc., Nat. Hist., vol. vii., p. 400.
- 1867. Rissoa turricula. Angas. P.Z.S. Lond., p. 114, pl. 13, f. 20.
- 1872. Rissoina angasi, Pease. Amer. Jour. Conch., vol. vii., p. 20.
- 1878. Rissoa turricula, Reeve. Conch. Icon., vol. xx., pl. 8, f. 69.
- 1878. Rissoa flexuosa, Reeve. Id., pl. 11, f. 97.
- 1885. Rissoina flexuosa, Weinkauff. Conch. Cab., p. 88, pl. 15d, f. 13.
- 1887. Rissoina (Schwartziella) flexuosa, Tryon. Man. Conch., vol. ix., p. 380, pl. 68, f. 1, 2.
- 1899. Rissoina (Rissolina) flexuosa, Tate. T.R.S. S.A., vol. xxiii., pp. 243, 244.

Hab.—Coast generally.

# Family TURBINIDAE.

# Genus Phasianella, Lamarck, 1804.

# Phasianella australis, Gmelin.

- 1788. Buccinum australe, Gmelin. Syst. Nat., p. 3490, No. 173.
- 1788. Buccinum tritonis, Chemnitz. Conch. Cab., vol. ix., pt. ii., p. 38, pl. 120, f. 1033, 1034.
  - 1822. Phasianella bulimoides, Lamarck. Anim. S. Vert., vol. vii., p. 52.
    - Phasianella varia, Lamarck. Encyc. Meth., pl. 449. f. 1a, b, c.
  - 1834. Phasianella bulimoides, Quoy and Gaimard. Astrolabe Zool., vol. iii., p. 235, pl. 59, f. 1-7.
  - 1839. Phasianella bulimoides, Lamarck. Anim. S. Vert., (3rd ed. Deshayes and Edwards), vol. iii., p. 586.

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- 1853. Phasianella australis, Philippi. Conch. Cab. (ed. Küster), p. 2, pl. 1, f. 1-7, and pl. 2, f. 1.
- 1859. Phasianella decorata, Chenu. Man. de Conch., vol. i., p. 343, f. 2530.
- 1862. Phasianella australis, Reeve. Conch. Icon., vol. xiii., pl. 1, f. 1, and pl. 2, f. 1.
- 1862. Phasianella venusta, Reeve. Id., pl. 2, f. 2.
- 1877. Phasianella pulchella, T. Woods (non Recluz). P.R.S. Tas., p. 141.
- 1878. Phasianella delicatula, T. Woods. Id., p. 38.
- 1884. Phasianella australis, Sowerby. Thes. Conch., vol. v., p. 149, pl. 475, f. 2-6.
- 1888. Phasianella australis, Tryon. Man. Conch., vol. x., p. 164, pl. 37, f. 22-28, and pl. 38, f, 46.
- 1888. Phasianella australis, var. subsanguinea, Pilsbry in Tryon. Man. Conch., vol. x., p. 165, pl. 38, f. 52.

Hab.—Common in Port Phillip where weed and sand are associated, Corio Bay and Sorrento may be specially mentioned; Western Port; Puebla Coast; Lorne; Warrnambool; Port Fairy.

# Phasianella ventricosa, Quoy and Gaimard.

- 1834. Phasianella ventricosa, Quoy and Gaimard. Astrolabe Zool., vol. iii., p. 237, pl. 59, f. 8, 9.
- 1839. Phasianella solida, Deshayes in Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 588.
- 1843. Phasianella perdix, Gray in Menke. Moll. Nov. Holl., p. 12, No. 43.
- 1843. Phasianella brevis, Menke. Id., No. 45.
- 1853. Phasianella turgida, Philippi. Conch. Cab., p. 5, pl. 2, f. 7-10, and pl. 5, f. 4.
- 1859. Phasianella delesserti, Chenu. Man. de Conch., vol. i., p. 343, f. 2526.
- 1862. Phasianella sanguinea, Reeve. Conch. Icon., vol. xiii., pl. 3, f. 3a, b, c.
- 1862. Phasianella zebra, Reeve. Id., f. 4.
- 1862. Phasianella venosa, Reeve. Id., f. 5a, b, c.

- 1862. Phasianella ventricosa, Reeve. Id., f. 6a, b.
- 1862. Phasianella reticulata, Reeve. Id., f. 7.
- 1884. Phasianella zebra, Sowerby. Thes. Conch., vol. v., p. 149, pl. 475, f. 9.
- 1884. Phasianella reticulata, Sowerby. *Id.*, p. 150, pl. 475, f. 1.
- 1884. Phasianella ventricosa, Sowerby. *Id.*, p. 151, pl. 476, f. 18.
- 1884. Phasianella venosa, Sowerby. Id., f. 24.
- 1884. Phasianella sanguinea, Sowerby. Id., f. 33.
- 1888. Phasianella ventricosa, Tryon. Man. Conch., vol. x., p. 165, pl. 38, f. 39, 40, 41, 42, 43, 45.

Hab.—Relatively uncommon in Port Phillip. Abundant in Western Port. Puebla Coast; Warrnambool; Port Fairy; Portland.

Obs.—Amongst the species of this genus described by Menke in his Mollusca of New Holland, are two under the names of P. preissi and P. lehmanni, which are described as being somewhat solid shells, and we are therefore inclined to think that they may also be synonyms of P. ventricosa, but not of the P. australis, which can hardly be described as of that character. Adcock's Hand List of the South Australian Shells includes these two names amongst the synonyms of P. australis, but with this we cannot agree.

# PHASIANELLA VARIEGATA, Lamarck.

- 1822. Phasianella variegata, Lamarck. Anim. S. Vert., vol. vii., p. 53.
- 1839. Phasianella variegata, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 578, No. 3.
- 1841. Phasianella variegata, Delessert. Recueil de coq., pl. 37, f. 10.
- 1847. Phasianella unifascialis, Kiener. Icon. Coq. Viv., p. 7, pl. 4, f. 2.
- 1862. Phasianella nivosa, Reeve. Conch. Icon., vol. xiii., pl. 4, f. 8a, b, c.
- 1862. Phasianella fulgurata, Reeve. Id., f. 9.

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- 1864. Phasianella angasi, Crosse. Jour. de Conch., p. 344, pl. 13, f. 5.
- 1884. Phasianella fulgurata, Sowerby. Thes. Conch., vol. v., p. 150, pl. 476, f. 22.
- 1884. Phasianella angasi, Sowerby. Id., f. 27.
- 1888. Phasianella variegata, Tryon. Man. Conch., vol.
   x., p. 179, pl. 39, f. 97, 98. P. nivosa, pl. 38, f. 49. P. fulgurata, pl. 38, f. 55.
- 1888. Phasianella angasi, Tryon. *Id.*, p. 180, pl. 39, f. 67, 68.
- Phasianella unifascialis, Tryon. *Id.*, p. 179, pl. 39,
   f. 96.
- 1897. Phasianella variegata, Tate. T.R.S. S.A., vol. xxi., p. 43.

Hab.—-Port Phillip; Western Port.

Obs.—P. jaspidea, Reeve, P. lentiginosa, Reeve, and P. grata, Philippi, have been given as synonyms of this species, but we have been unable to determine upon what grounds, as they appear to us to be entirely distinct from our form.

### Phasianella Rosea, Angas.

- 1867. Eutropia (Tricolia) rosea, Angas. P.Z.S. Lond., p. 114, pl. 13, f. 24.
- 1888. Phasianella (Tricolia) rosea, Tryon. Man. Conch., vol. x., p. 174, pl. 39, f. 92.
- Hab.—Western Port; Cape Schanck; Puebla Coast; Cape Otway; Moonlight Head.

# Genus Turbo, Linnaeus, 1758.

# TURBO UNDULATUS, Martyn.

- 1784. Limax undulatus, Martyn. Univ. Conch., vol. i., f. 29.
- 1786. Limax anguis, Martyn. Id., vol. ii., f. 70.
- 1788. Turbo undulatus, Chemnitz. Conch. Cab., vol. x., p. 296, pl. 169, f. 1640, 1641.
- 1834. Turbo undulatus, Quoy and Gaimard. Astrolabe Zool., vol. iii., p. 221, pl. 60, f. 9-14.
- 1839. Turbo undulatus, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 570, No. 13.

- 1846. Turbo anguis, Philippi. Conch. Cab., p. 70, No. 34, pl. 16, f. 8.
- 1846. Turbo undulatus, Philippi. Conch. Cab., pp. 40, 41, pl. 10, f. 5, 6.
- 1848. Turbo undulatus, Reeve. Conch. Icon., vol. iv.,. pl. 1, f. 3a, b.
- 1867. Lunella undulata, Angas. P.Z.S. Lond., p. 213, No. 171.
- 1873. Turbo undulatus, Hutton. Cat. N.Z. Moll., p. 34.
- 1880. Turbo undulatus, Hutton. Man. N.Z. Moll., p. 91.
- 1888. Turbo undulatus, Pilsbry in Tryon. Man. Conch., vol. x., p. 216, pl. 42, f. 40.
- 1888. Turbo anguis, Pilsbry in Tryon. *Id.*, index, p. 272 said to equal T. porphyrites, Martyn.
- 1893. Turbo (Marmorostoma) undulatus, Brazier. P.L.S. N.S.W., 2nd ser., vol. viii., pt. i., p. 112.

Hab.—One of our commonest littoral species in all rocky localities.

Obs.—Mr. Brazier states that, in his opinion, Mr. Pilsbry has evidently made a mistake in regarding T. anguis, Martyn, and T. porphyrites, Martyn, as identical.

# Turbo stamineus, Martyn.

- 1784. Limax stamineus, Martyn. Univ. Conch., vol. ii., f. 71.
- 1788. Turbo torquatus, Gmelin. Syst. Nat., p. 3597, No. 106.
- 1788. Turbo torquatus, Chemnitz. Conch. Cab., vol. x., p. 293, vign. 24, f. a. b.
- 1822. Turbo torquatus, Lamarck. Anim. S. Vert., vol. vii., p. 40.
- 1834. Turbo torquatus, Quoy and Gaimard. Astrolabe Zool., vol. iii., p. 222, pl. 60, f. 15-18.
- 1839. Turbo torquatus, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 568, No. 3.
- 1842. Turbo staminea, Gray. App. to Dieffenbach's N.Z., vol. ii., p. 236, No. 67.

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- 1843. Turbo torquatus, Lamarck. Anim. S. Vert. (Deshayes ed.), vol. ix., p. 187, No. 3.
  - Turbo lamellosus, Broderip. Zool. Jour., vol. v., p. 331, sup. pl. 49, f. 2.
- ? 1846. Turbo torquatus, Philippi. Conch. Cab., p. 39, pl. 10, f. 1, 2.
- ? 1846. Turbo lamellosus, Philippi. Id., p. 69, pl. 16, f. 6.
- 1848. Turbo torquatus, Reeve. Conch. Icon., vol. iv., pl. 6, f. 26.
- 1854. Ninella staminea, Adams. Genera, vol. i., p. 396, pl. 44, f. 1, a, b, c.
- 1865. Ninella staminea, Angas. P.Z.S. Lond., p. 177, No. 134.
- 1873. Turbo torquatus, Fischer. Icon. Coq. Viv., p. 15, sp. 7, pl. 4, f. 1.
- 1886. Turbo (Ninella) staminea, Watson. Chall. Zool., vol. xv., p. 127, No. 6.
- 1888. Turbo (Ninella) stamineus, Tryon. Man. Conch., vol. x., p. 212, pl. 42. f. 38, and pl. 49, f. 46.

#### Hab.—Polwarth Coast.

# Turbo gruneri, Philippi.

- 1846. Turbo gruneri, Philippi. Zeits. f. Malak., p. 98, No. 6.
- ?1846. Turbo gruneri, Philippi. Conch. Cab., p. 52, pl. 12, f. 7, 8.
  - 1848. Turbo circularis, Reeve. Conch. Icon., vol. iv., pl. 10, f. 46.
  - 1854. Senectus circularis, H. and A. Adams. Genera, vol. i., p. 392.
  - 1865. Senectus circularis, Angas. P.Z.S. Lond., p. 177.
  - 1873. Turbo circularis, Fischer. Icon. Coq. Viv., p. 99, pl. 42, f. 1.
  - 1877. Turbo (Senectus) circularis, T. Woods. P.R.S. Tas., p. 38.
  - 1885. Turbo circularis, Sowerby. Thes. Conch., vol. v., p. 203, sp. 42, pl. 4, and pl. 496, f. 37.
  - 1887. Turbo gruneri, Brazier. T.R.S. S.A., vol. ix., p. 125.

1888. Turbo circularis, Tryon. Man. Conch., vol. x., p. 214, pl. 41, f. 24, and pl. 56, f. 82.

1893. Turbo gruneri, Brazier. P.L.S. N.S.W., vol. viii., pt. i., p. 110.

Hab.—Sorrento, Port Phillip; Balnarring, Flinders, San Remo, Western Port; Cape Schanck; Anderson's Inlet.

# Genus Leptothyra, Carpenter in Dall, 1871.

LEPTOTHYRA ROSEA, T. Woods.

1876. Monilea rosea, T. Woods. P.R.S. Tas., p. 154.

1880. Collonia roseo-punctata, Angas. P.Z.S. Lond., p. 417, pl. 40, f. 8.

1888. Leptothyra roseo-punctata, Tryon. Man. Conch., vol. x., p. 258, pl. 57, f. 54, 55.

1889. Monilea (Minolia) rosea, Tryon. Man. Conch., vol. xi., p. 264.

Hab.—Sorrento, Port Phillip; Western Port.

LEPTOTHYRA JOSEPHI, T. Woods.

1877. Cyclostrema josephi, T. Woods. P.R.S. Tas., p. 147.

1888. Cyclostrema (Tubiola) josephi, Tryon. Man. Conch., vol. x., p. 95, pl. 33, f. 9.

1899. Collonia josephi, Tate. T.R.S. S.A., vol. xxiii., p. 224.

Hab.—Western Port.

Lертотнука, п. sp.

Hab.—Dredged off Rhyll, Western Port.

# Genus Astralium, Link, 1807.

Astralium squamiferum, Koch.

Trochus squamiferus, Koch. Abbild. und Besch., neuer Conch., pl. 4, f. 9.

1822. Trochus fimbriatus, Lamarck. Anim. S. Vert., vol. vii., p. 12.

1839. Trochus fimbriatus, Lamarck. *Id.* (3rd ed. Deshayes and Edwards), vol iii., p. 546, No. 8.

1843. Trochus fimbriatus, Lamarck. *Id.* (Deshayes ed.), vol. ix., p. 125.

- 1855. Carinidea fimbriata, Swainson. P.R.S. Van Diemen's Land, p. 39, pl. 6, f. 3, 4.
- 1861. Trochus squamiferus, Reeve. Conch. Icon., vol. xiii., pl. 11, f. 60.
- 1876. Trochus fimbriatus, Fischer, Kiener. Icon. Coq. Viv., pl. 32, f. 2a, 2.
- 1888. Astralium fimbriatum, var. squamiferus, Tryon. Man. Conch., vol. x., p. 240, pl. 54, f. 52.
- 1888. Astralium (Cyclocantha) fimbriatum, Tryon. *Id.*, p. 239, pl. 54, f. 46, 48, 49.

Hab.—Cape Schanck; Warrnambool. Dredged off Rhyll, Western Port.

### ASTRALIUM AUREUM, Jonas.

- 1844. Trochus aureus, Jonas. Zeits. f. Malak., p. 168.
- 1855. Carinidea granulata, Swainson. P.R.S. Van Diemen's Land, vol iii., p. 40, pl. 6, f. 5, 6.
- 1861. Trochus aureus, Reeve. Conch. Icon., vol. xiii., pl. 11, f. 58, 59.
- 1877. Carinidea tasmanica, T. Woods. P.R.S. Tas., p. 142.
- 1888. Astralium (Cyclocantha) aureum, Tryon. Man. Conch., vol. x., p. 240, pl. 64, f. 52-54.

Hab.—Rather common in Port Phillip and Western Port, also occurring along the coast generally.

Obs.—Regarding Carinidea tasmanica, T. Woods states that he had always regarded this as a young variety of Trochus aureus, Jonas, but the form is so constant and so very distinct that he decided to describe it as new. We, however, feel pretty sure that his first opinion was correct. Regarding Liotia incerta, T. Woods, Professor Tate remarks that Petterd regarded this shell as an immature Astralium tasmanicum, but that such opinion cannot be correct. We are inclined to agree with Professor Tate, for the description of L. incerta does not enable us to regard it as a synonym of the above, but a specimen labelled L. incerta, in the Tasmanian case in the old National Museum, certainly is the young of A. aureum. This specimen may perhaps have been obtained from Mr. Petterd. Professor Tate inclines to the opinion that T. Woods' species incerta is a Liotia, but probably an immature L. tasmanica.

# Family Trochidae.

#### Genus Clanculus, Montfort, 1810.

### CLANCULUS LIMBATUS, Quoy and Gaimard.

- 1834. Trochus limbatus, Quoy and Gaimard. Astrolabe, vol. iii., p. 245, pl. 63, f. 1-6.
- 1848. Trochus morum, Philippi. Zeits. f. Malak., p. 109.
- 1846. Trochus morum, Philippi. Conch. Cab., p. 265, pl. 39, f. 5.
- ? 1846. Trochus limbatus, Philippi. Id., p. 212, pl. 31, f. 10-12.
  - 1851. Trochus variegatus, A. Adams (non Auton). P.Z.S. Lond., p. 160, No. 27.
  - 1876. Trochus limbatus, Fischer. Icon. Coq. Viv., p. 214, pl. 71, f. 2.
  - Trochus (Clanculus) limbatus, Tryon. Man. Conch., vol. xi., p. 50, pl. 11, f. 39, 40.
  - 1889. Trochus (Clanculus) variegatus, Tryon. Id., p. 50, pl. 14, f. 19.
  - 1889. Trochus (Clanculus) morum, Tryon. Id., p. 55, pl. 14, f. 31, 32.

Hab.—Port Fairy; Cape Schanck; Back Beach, Sorrento; San Remo and Flinders, Western Port.

Obs.—There can be very little doubt about the identification of this species, for the figures supplied by Quoy and Gaimard are good. Our shell agrees well with Adams' original description, but not with the figure representing it given by Tryon. In general habit our species agrees closely with C. omalomphalus, A. Adams, from New South Wales, but amongst other features it may be noted that ours is larger and more coarsely marked. From the species we have identified as C. flagellatus, Philippi, the above differs in its more conical habit, flatter whorls, and details of ornament.

# CLANCULUS FLAGELLATUS, Philippi.

- 1848. Trochus flagellatus, Philippi. Zeits. f. Malak., p. 105.
- ? 1846. Trochus flagellatus, Philippi. Conch. Cab., p. 267, pl. 39, f. 9.

1889. Trochus (Clanculus) flagellatus, Tryon. Man. Conch., vol. xi., p. 55, pl. 19, f. 3, 4.

Hab.—Coast generally.

Obs.—This species has apparently been confused with T. anus, Philippi, and there are many resemblances between the two, but the latter has distinctive apertural and umbilical characters. It has been identified, and we think probably correctly, as C. conspersus, A. Adams. P.Z.S. Lond., 1851, p. 163, No. 46.

# Clanculus personatus, Philippi.

- 1846. Monodonta ringens, Philippi (non Menke). Zeits. f. Malak., p. 99.
- ? 1846. Trochus personatus, Philippi. Conch. Cab., p. 78, No. 78, pl. 14, f. 7.
  - 1889. Trochus (Clanculus) personatus, Tryon. Man. Conch., vol. xi., p. 56, pl. 14, f. 29, 30, and pl. 19, f. 91, 92.

Hab.—San Remo; Lorne.

### CLANCULUS UNDATUS, Lamarck.

Monodonta undata, Lamarck. Encyc. Meth., pl. 447, f. 3a, b.

1822. Trochus undatus, Lamarck. Anim. S. Vert., vol. vii., p. 28, No. 61.

1828. Trochus smithii, Wood. Index Test., sup., p. 17, pl. 5, f. 20a.

1839. Trochus undatus, Lamarck. Anim. S. Vert. (3rd ed., Deshayes and Edwards), vol. iii., p. 554, No. 61.

- ? 1846. Trochus undatus, Philippi. Conch. Cab., p. 221, No. 276, pl. 33, f. 4.
  - 1859. Trochus (Clanculus) undatus, Chenu. Man. de Conch., vol. i., p. 357, f. 2648.
  - 1876. Trochus undatus, Fischer. Icon. Coq. Viv., p. 168, pl. 58, f. 2.
  - 1889. Trochus (Clanculus) undatus, Tryon. Man. Conch., vol. xi., p. 65, pl. 40, f. 1.

Hab.—Sorrento, Port Phillip; Cape Schanck; Flinders; Western Port; Kilcunda; Anderson's Inlet; Airey's Inlet; Lorne.

#### CLANCULUS MAUGERI, Wood.

1828. Trochus maugeri, Wood. Index Test. sup., p. 220, pl. 5, f. 27a.

? 1846. Trochus maugeri, Philippi. Conch. Cab., p. 240, No. 305, pl. 36, f. 9.

1876. Trochus maugeri, Fischer. Icon. Coq. Viv., p. 218, pl. 72, f. 1.

1878. Clanculus maugeri, T. Woods. P.R.S. Tas., p. 40.

1889. Trochus (Clanculus) maugeri, Tryon. Man. Conch., vol. xi., p. 64, pl. 10, f. 25-27.

Hab.—Victoria (T. Woods).

### CLANCULUS ALOYSII, T. Woods.

1876. Clanculus aloysii, T. Woods. P.R.S. Tas., p. 155.

1876. Claneulus philomenae, T. Woods. P.R.S. Tas., p. 155.

1889. Trochus (Clanculus) aloysii, Tryon. Man. Conch., vol. xi., p. 59, pl. 14, f. 20-23.

1889. Trochus (Clanculus) philomenae, Tryon. *Id.*, p. 61. Hab.—Port Phillip; Western Port; San Remo; dredged alive off Point Cooke, from 5 fathoms.

Obs.—Having a good series of representatives of this species, we note considerable variation in form, the keeling of the body whorl being noticeable in this respect, being very prominent sometimes, and almost absent at others, as also the sutural channelling. We have thus been unable to make any specific distinction between the two species of Tenison Woods.

### CLANCULUS DUNKERI, Koch.

1843. Trochus (Monodonta) dunkeri, Kock. In Philippi, Abbild. und Besch. neuer Conch., vol. i., pt. iii., p. 67, pl. 2. f. 5.

? 1846. Trochus dunkeri, Philippi. Conch. Cab., 2nd ed. p. 237, No. 300, pl. 36, f. 5.

1865. Clanculus rubens, Angas. P.Z.S. Lond., p. 178, No. 144.

1876. Trochus dunkeri, Fischer. Icon. Coq. Viv., p. 361, pl. 96, f. 2.

1878. Clanculus rubens, T. Woods. P.R.S. Tas., p. 40.

- 1886. Trochus (Clanculus) dunkeri, Brazier. P.R.S. Tas., p. 202.
- 1887. Trochus (Clanculus) dunkeri, Brazier. T.R.S. S.A., vol. ix., pp. 121, 122.
- 1889. Trochus (Clanculus) dunkeri, Tryon. Man. Conch., vol. xi., pp. 61, 62, pl. 14, f. 26, 27, and pl. 15, f. 57, 58.

Hab.—Western Port.

Obs.—Mr. Brazier in a paper entitled the "Trochidae and other genera of Mollusca from Tasmania with their synonyms," in the Proc. Roy. Soc. Tas., for 1886, p. 203, makes the following remarks on this species:—"Mr. Angas always returned this species named as Clanculus rubens of A. Adams. There was no such species as Clanculus rubens ever described by A. Adams. Mr. Angas was the first who published the name in the P.Z.S. London, 1865, p. 178."

### CLANCULUS PLEBEIUS, Philippi.

- ? 1846. Trochus plebeius, Philippi. Conch. Cab., p. 326, pl. 46, f. 10.
  - 1851. Trochus plebeius, Philippi. Zeits. f. Malak., p. 41.
  - 1851. Clanculus nodoliratus, A. Adams. P.Z.S. Lond., p. 163.
  - 1876. Trochus plebeius, Fischer. Icon. Coq. Viv., p. 243, pl. 83, f. 2, 2a.
  - 1877. Gibbula multicarinata, T. Woods. P.R.S. Tas., p. 142, No. 30.
  - 1877. Clanculus angeli, T. Woods. Id., pp. 144, 145.
  - 1880. Clanculus nodoliratus, T. Woods. Id., p. 70.
  - 1889. Trochus (Clanculus) plebeius, Tryon. Man. Conch., vol. xi., p. 79, pl. 10, f. 19–22, and pl. 13, f. 1, 2.
- 1889. Trochus (Clanculus) angeli, Tryon. Id., p. 60.

Hab.—Coast generally. Obtained alive in rock pools at low tide, and dredged alive from three to five fathoms.

Obs.—This is by far the commonest species of this genus and may be obtained in great numbers at almost any part of our coast.

### CLANCULUS OCHROLEUCUS, Philippi.

? 1853. Trochus ochroleucus, Philippi. Conch. Cab., p. 243, pl. 36, f. 16.

1889. Trochus (Clanculus) ochroleucus, Tryon. Man. Conch., vol. xi., p. 57, pl. 13, f. 95, 96.

Hab.—Balnarring Coast, Western Port; Puebla Coast.

### Genus Monodonta, Lamarck, 1799.

#### s. g. Austrocochlea, Fischer, 1885.

#### Austrocochlea constricta, Lamarck.

- 1822. Monodonta constricta, Lamarck. Anim. S. Vert., vol. vii., p. 36.
- 1829. Monodonta zebra, Menke. Verg. Malak. Conch. Samml., p. 17.
- 1834. Trochus taeniatus, Quoy and Gaimard. Astrolabe, vol. iii., p. 249, pl. 63, f. 15-17.
- 1834. Trochus constrictus, Quoy and Gaimard. Id., p. 251, pl. 63, f. 23-27.
- 1839. Monodonta constricta, Lamarck. Anim. S. Vert. (3rd ed. Deshayes and Edwards), vol. iii., p. 565.
- 1841. Monodonta constricta, Delessert. Recueil, pl. 36, f. 11.
- 1843. Monodonta constricta, Menke. Moll. Nov. Holl., p. 13, No. 49.
- 1843. Monodonta constricta, Lamarck. Anim. S. Vert., (Desh. ed.), vol. ix., p. 180.
- ? 1846. Trochus constrictus, Philippi. Conch. Cab., p. 159; pl. 26, f. 2b, 3.
- ?1846. Trochus zebra, Philippi. Conch. Cab., p. 160, pl. 26, f. 4.
  - 1851. Labio porcatus, A. Adams. P.Z.S. Lond., p. 179.
  - 1859. Trochocochlea multicarinata, Chenu. Man. de Conch., vol. ii., p. 360, f. 2678.
  - 1876. Trochus constrictus, Fischer. Icon. Coq. Viv., p. 178, pl. 59, f. 2, and pl. 60, f. 4.
  - 1876. Trochocochlea multicarinata, Fischer. Id., p. 184, pl. 60, f. 3.

1876. Trochus extenuatus, Fischer. *Id.*, p. 330, pl. 103, f. 1.

1889. Monodonta (Austrocochlea) constricta, Tryon. Man. Conch., vol. xi., p. 90, pl. 20, f. 6, 7.

1889. Monodonta (Austrocochlea) zebra, Tryon. *Id.*, pl. 20, f. 20; *var.* porcata, pl. 20, f. 10, 11; multicarinata, pl. 20, f. 12.

Hab.—All rocky portions of coast line.

Obs.—This is one of the commonest, if not the commonest species inhabiting our coast, and has also a very wide Australasian range. In consequence of its enormous numbers, very considerable variation in habit, keeling, and colouring, may be noted, but there is usually no difficulty in identifying the species.

## Austrocochlea Striolata, Quoy and Gaimard.

1828. Trochus concamerata, Wood. Index Test. Sup., pl. 6, f. 35.

1834. Trochus striolatus, Quoy and Gaimard. Astrolabe, vol. iii., p. 253, pl. 63, f. 18-22.

1851. Labio fuligineus, Adams. P.Z.S. Lond., p. 180.

1876. Trochus striolatus, Fischer. Icon. Coq. Viv., p. 187, pl. 61, f. 3.

1886. Trochus fuligineus, Watson. Chall. Zool., vol. xv., p. 67, pl. 4, f. 11.

1889. Monodonta (Neodiloma) striolatus, Tryon. Man. Conch., vol. xi., p. 99, pl. 19, f. 97, 98.

Hab.—Port Phillip; Point Nepean to Flinders; Western Port; Puebla, and a few other rocky parts, but much less common than the preceding species. As no description was given of T. concamerata, Wood, we have followed other conchologists in not adopting that name.

## Diloma, Philippi, 1845.

DILOMA ODONTIS, Wood.

1828. Trochus odontis, Wood. Index Test. Sup., p. 17, pl. 6, f. 37.

? 1846. Trochus odontis, Philippi. Conch. Cab., p. 144, No. 174, pl. 24, f. 7. 1854. Diloma odontis, H. and A. Adams. Genera, vol. i., p. 420.

1865. Diloma odontis, Angas. P.Z.S. Lond., p. 182.

1887. Trochus (Diloma) odontis, Brazier. T.R.S. S.A., vol. ix., p. 119.

1889. Monodonta (Chlorodiloma) odontis, Tryon. Man. Conch., vol xi., p. 111., pl. 62, f. 66, 67.

Hab.—Common on the rocks at low water in Port Phillip and Western Port, but ranges also along the coast in less abundance.

DILOMA ADELAIDAE, Philippi.

? 1846. Trochus adelaidae, Philippi. Conch. Cab., p. 140,
 No. 168, pl. 24, f. 1.

1876. Gibbula depressa, T. Woods. P.R.S. Tas., p. 154.

1876. Trochus adelaidae, Fischer. Icon. Coq. Viv., p. 210.

1877. Diloma australis, T. Woods. P.R.S. Tas., p. 145, No. 37.

1881. Gibbula tesserula, T. Woods. T.R.S. Vic., vol. xvii., p. 81, pl. 1, f. 3-5.

1887. Trochus (Diloma) adelaidae, Brazier. T.R.S. S.A., vol. ix., p. 120.

1889. Gibulla depressa, Tryon. Man. Conch., vol. xi., p. 234, pl. 40, f. 36, 37.

1889. Monodonta (Chlorodiloma) adelaidae, Tryon. *Id.*, p. 111, pl. 35, f. 22, 23.

1889. Gibbula tesserula, Tryon. *Id.*, p. 234, pl. 32, f. 66, 67, 68.

Hab.—Port Phillip; Western Port; Puebla Coast; Lorne; Warrnambool; Anderson's Inlet.

Obs.—The description of young specimens of the above species no doubt accounts for the peculiarity of the synonymy, as several features are noticeable in the young that are not always readily picked out in the adult form.

### Genus Phasianotrochus, Fischer, 1885.

Phasianotrochus Rosea, Lamarck.

1822. Monodonta rosea, Lamarck. Anim. S. Vert., vol. vii., p. 38, No. 22.

1822. Monodonta lineata, Lamarck. Id., No. 23.

- 1828. Trochus badius, Wood. Index. Test., sup., pl. 6, f. 46.
- 1834. Trochus australis, Quoy and Gaimard. Astrolabe, vol. iii., p. 248, pl. 63, f. 13, 14.
- 1841. Monodonta rosea, Delessert. Recueil, No. 22, pl. 37, f. 3a, b, c.
- 1841. Monodonta lineata, Delessert. *Id.*, No. 23, pl. 37, f. 4*a*, *b*.
- 1846. Trochus roseus, Philippi. Conch. Cab., p. 134, No. 156, pl. 23, f. 7.
- 1846. Trochus peronii, Philippi. *Id.*, p. 135, No. 158, pl. 23, f. 9.
- 1846. Trochus quoyi, Philippi. *Id.*, p. 139, No. 165, pl. 23, f. 17.
- 1846. Trochus badius, Philippi. *Id.*, p. 137, No. 162, pl. 23, f. 14.
- 1859. Elenchus fulmineus, Chenu. Man. de Conch., vol. i., p. 360, f. 2671.
- 1889. Cantharidus (Phasianotrochus) badius, Tryon. Man. Conch., vol. xi., p. 131, pl. 45, f. 57, 58.
- 1889. Cantharidus (Phasianotrochus) peroni, Tryon. *Id.*, p. 132, pl. 34, f. 12-14.

Hab.—Western Port; Anderson's Inlet; Puebla Coast; Warrnambool; Port Fairy.

Obs.—While looking into the synonymy of this species, it seems pretty obvious that rosea should be accepted in preference to lineata. Mr. C. Hedley has kindly drawn our attention to a recent note by Mr. Pilsbry in the "Nautilus" for May 1901, in which he states that he believes it has not been noticed that Bulimus eximius, Perry, Conchology, plate 30, figure 2 (1811), is identical with Cantharidus badius, Wood; and Bulimus carinatus, Perry, f. 1, is C. peronii, Philippi. We have not yet had an opportunity of seeing Perry's work, and are therefore unable to express an opinion on the matter, except that carinatus is the name that should stand for this species if Pilsbry be correct.

Phasianotrochus irisodontes, Quoy and Gaimard.

1834. Trochus irisodontes, Quoy and Gaimard. Astrolabe, vol. iii., p. 246, pl. 63, f. 7-12.

- 1843. Monodonta virgata, Menke. Moll. Nov. Holl., p. 15, No. 59.
- 1846. Trochus iriodon, Philippi. Conch. Cab., p. 136, No. 159, pl. 23, f. 10, 11, 13.
- 1846. Trochus virgulatus, Philippi. *Id.*, p. 136, No. 160, pl. 23, f. 12.
- 1876. Trochus iridon, Fischer. Icon. Coq. Viv., p. 160, pl. 52, f. 3.
- 1889. Cantharidus (Phasianotrochus) irisodontes, Tryon. Man. Conch., vol. xi., p. 133, pl. 46, f. 64-66.

Hab.—Coast generally, a very common species.

### Phasianotrochus apicinus, Menke.

- 1843. Monodonta apicinus, Menke. Moll. Nov. Holl., p. 15, No. 58.
- 1846. Trochus apicinus, Philippi. Conch. Cab., p. 133, pl. 23, f. 5.
- 1889. Cantharidus (Phasianotrochus) apicinus, Tryon. Man. Conch., vol. xi., p. 134, pl. 34, f. 6, 7.

Hab.—Portland; Port Fairy.

### PHASIANOTROCHUS BELLULUS, Dunker.

- 1845. Trochus bellulus, Dunker. Abbild., vol. ii., pt. 2, pl. 7, f. 6.
- 1846. Trochus bellulus, Phillippi. Conch. Cab., p. 134, No. 157, pl. 23, f. 8.
- 1876. Trochus bellulus, Fischer. Icon. Coq. Viv., p. 154, pl. 51, f. 1.
- 1889. Cantharidus (Phasianotrochus) bellulus, Tryon. Man. Conch., vol. xi., p. 133, pl. 34, f. 5.

Hab.—Portland.

### Genus Bankivia, Krauss, 1848.

### BANKIVIA FASCIATA, Menke.

- 1830. Phasianella fasciata, Menke. Syn. Meth. Moll., pp. 51, 141.
- 1830. Phasianella fulminata, Menke. Id., p. 141.
- 1830. Phasianella undatella, Menke. Id., p. 141.

- 1848. Bankivia varians, Krauss. Sudafric. Moll., p. 105, pl. 5, f. 7.
- ? 1846. Bankivia varians, Philippi. Conch. Cab., p. 33, pl. 5, f. 1-5.
  - 1851. Bankivia purpurascens, A. Adams. P.Z.S. Lond., p. 171.
  - 1851. Bankivia major, A. Adams. Id., p. 171.
  - 1851. Bankivia nitida, A. Adams. Id., p. 172.
- 1854. Bankivia varians, Adams. Genera., vol. i., p. 425, pl. 48, f. 6.
- 1859. Bankivia varians, Chenu. Man. de. Conch., vol. i., p. 360, f. 3674-3675,
- 1867. Bankivia varians, Angas. Id., p. 216.
- 1886. Trochus (Bankivia) fasciatus, Watson. Chall. Zool., vol. xv., p. 64, No. 22.
- 1889. Cantharidus (Bankivia) fasciatus, Tryon. Man. Conch., vol. xi., p. 139, pl. 40, f. 28-33.

Hab.—Portland to Warrnambool; Anderson's Inlet; Kilcunda (W. H. Ferguson).

## Genus Leiopyrga, H. and A. Adams. 1863.

## LEIOPYRGA PICTURATA, H. and A. Adams.

- 1863. Leiopyrga picturata, H. and A. Adams. A.M.N.H., 3rd ser., vol. xi., p. 19.
- 1865. Leiopyrga picturata, Angas. P.Z.S. Lond., p. 181.
- 1867. Leiopyrga picturata, Angas. Id., p. 216.
- 1884. Bankivia (Leiopyrga) picturata, E. A. Smith. Alert Zool., p. 75, pl. 6, f. c.
- 1886. Trochus (Leiopyrga) picturata, Watson. Chall. Zool., vol. xv., p. 65.
- 1889. Bankivia (Leiopyrga) picturata, Tryon. Man. Conch., vol. xi., p. 140, pl. 45, f. 46-48.

Hab.—Portland.

## LEIOPYRGA OCTONA, Tate.

1891. Leiopyrga octona, Tate. T.R.S. S.A., vol. xiv., pt. 2, pp. 260, 261, pl. 11, f. 5.

Hab.—Port Fairy (Rev. W. T. Whan).

### Genus Thalotia, Gray, 1847.

#### THALOTIA CONICA, Gray.

- 1827. Monodonta conica, Gray. King's Austr. Survey, App., vol. ii., p. 479, No 28.
- 1828. Trochus pictus, Woods. Index Test., Sup., p. 17, pl. 5, f. 28.
- 1843. Monodonta turrita, Menke. Moll. Nov. Holl., p. 15, No. 57.
- 1847. Thalotia conica, Gray. P.Z.S. Lond., p. 145.
- ?1846. Trochus conicus, Philippi. Conch. Cab., p. 130, No. 150, pl. 23, f. 1.
  - 1851. Thalotia picta, A. Adams. P.Z.S. Lond., p. 172, No. 1.
  - 1854. Thalotia conica, H. and A. Adams. Genera, vol. i., p. 420, pl. 48, f. 1.
  - 1876. Trochus conicus, Fischer. Icon. Coq. Viv., p. 135.
  - 1878. Thalotia conica, T. Woods. P.R.S. Tas., p. 41.
  - 1878. Thalotia dubia, T. Woods. P.R.S. Vic., vol. xiv., p. 58.
  - 1881. Thalotia conica, Tate. P.L.S. N.S.W., vol. vi., p. 394.
  - 1887. Trochus (Thalotia) conicus, Brazier. P.R.S. Tas., p. 197.
  - 1887. Trochus (Thalotia) conicus, Brazier. T.R.S. S.A., vol. ix., p. 117.
  - 1889. Cantharidus (Thalotia) conicus, Tryon. Man. Conch., vol. xi., p. 141, pl. 46, f. 73.
  - 1900. Thalotia conica, Gatliff. V.N., vol. xvii., No. 6, p. 112, two figures.

Hab.—Port Phillip; Western Port; Puebla; Warrnambool; Port Fairy.

Obs.—The type of Thalotia dubia, T. Woods, is in the National Museum collection, Meldourne, and was originally obtained from Clark's Island, Bass Strait. Examination of the type shows, undoubtedly, that it must be regarded as the same as Thalotia conica, Gray, its young growth for about four whorls being identical, but after that a distorted abnormal growth begins and then follows a much greater convexity of the whorls than is

usually found in that species. This type shell was figured by one of us in the "Victorian Naturalist" last year.

#### Genus Cantharidus, Montfort, 1810.

#### CANTHARIDUS PULCHERRIMUS, Wood.

- 1828. Trochus pulcherrimus, Wood. Index Test., Sup., p. 18, pl. 6, f. 45.
- 1843. Trochus preissii, Menke. Moll. Nov. Holl., p. 17, No. 69.
- 1845. Trochus pulcherrimus, Philippi. Abbild. Besch. n. Conch., vol. ii., pt. ii., pl. 7, f. 1.
- ? 1846. Trochus pulcherrimus, Philippi. Conch. Cab., p. 132, No. 153, pl. 23, f. 4, and pl. 43, f. 11.
  - 1865. Thalotia pulcherrima, Angas. P.Z.S. Lond., p. 179, No. 151.
  - 1876. Trochus pulcherrimus, Fischer. Icon. Coq. Viv., p. 137, pl. 46, f. 4, 4a.
  - 1878. Thalotia mariae, T. Woods. T.R.S. Vic., p. 58.
  - 1881. Thalotia pulcherrima, Tate. P.L.S. N.S.W., vol. vi., p. 396.
  - 1887. Trochus (Cantharidus) pulcherrimus, Brazier. P.R.S. Tas. p. 196.
  - 1887. Trochus (Cantharidus) pulcherrimus, Brazier. T.R.S. S.A., vol. ix., pp. 118, 119.
  - 1889. Cantharidus pulcherrimus, Tryon. Man. Conch., vol. xi., p. 125, pl. 46, f. 78, 79.

## Hab.—Coast generally.

Obs.—One of our commonest and most widely distributed species. The type of Thalotia mariae, T. Woods, is in the Australian Museum, Sydney.

## Cantharidus ramburi, Crosse.

- 1822. Phasianella elegans, Lamarck (non Gmelin). Anim. S. Vert., vol. vii., p. 53, No. 4.
- 1843. Phasianella elegans, Lamarck. *Id.*, Deshayes, 2nd ed., vol. ix., p. 243.
- 1843. Trochus lehmanni, Menke (non Kiener). Moll. Nov. Holl., p. 18, No. 70.

- 1845. Trochus lehmanni, Philippi. Abbild. Besch. n. Conch., vol. ii., p. 37, pl. 7, f. 2.
- 71846. Trochus pietus, Philippi (non Wood). Conch. Cab., p. 139, No. 166, pl. 23, f. 18, 19.
  - Thalotia lehmanni, A. Adams. P.Z.S. Lond., p. 1851. 172, No. 4.
- 1854. Thalotia lehmanni, H. and A. Adams. Genera, vol. i., p. 420.
- Trochus ramburi, Crosse. Jour. de Conch., p. 342, 1864. pl. 13, f. 3.
- 1876. Trochus lesueuri, Fischer. 1con. Coq. Viv., pp. 129, 420.
- 1877. Thalotia pieta, T. Woods. P.R.S. Tas., p. 41.
- 1887. Trochus (Cantharidus) lesueuri, Brazier. Tas., p. 194.
- Trochus (Cantharidus) Iesueuri, Brazier. 1887. T.R.S. S.A., vol. ix., p. 116.
- 1889. Cantharidus lesueuri, Tryon. Man. Conch., vol. xi., p. 126, pl. 45, f. 52-54, and pl. 34, f. 9, 10.
- 1889. Cantharidus ramburi, Tryon. Id., pp. 127, 469, pl. 45, f. 40.

Hab.—Coast generally, usually an associate with the preceding species.

## Genus Gibbula, Risso, 1826. -

## GIBBULA TIBERIANA, Crosse.

- 1863. Trochus tiberianus, Crosse. Jour. d. Conch., p. 381, pl. 13, f. 2.
- 1864. Cantharidus decoratus, Adams and Angas. P.Z.S. Lond., p. 37.
- 1867. Cantharidus tiberianus, Angas. P.Z.S. Lond., p. 215.
- 1876. Gibbula aurea, T. Woods. P.R.S. Tas., p. 153.
- 1876. Trochus tiberianus, Fischer. Icon. Coq. Viv., p. 408, pl. 120, f. 2.
- Thalotia tesselata, T. Woods. T.R.S. Vic., vol. 1877. xiv., p. 58.
- 1889. Thalotia tesselata, Tryon. Man. Conch., vol. xi., p. 151.

1889. Cantharidus decoratus, Tryon. Id., p. 153.

1889. Gibbula tiberiana, Tryon. Id., p. 222, pl. 32, f. 53.

1889. Gibbula aurea, Tryon. Id., p. 237.

Hab.—Generally distributed around Port Phillip, dredged alive from about 5 fathoms off Point Cooke; dredged alive on weed from 5 to 8 fathoms off Rhyll, Western Port; Flinders; Cape Schanck; Puebla.

Obs.—The type of Thalotia tesselata, T. Woods, is in the National Museum, Melbourne.

#### GIBBULA COXI, Angas.

1867. Gibbula coxi, Angas. P.Z.S. Lond., p. 115, pl. 13, f. 26.

1876. Trochus coxi, Fischer. Icon. Coq. Viv., p. 339, pl. 105, f. 3.

1889. Gibbula coxi, Tryon. Man. Conch., vol. xi., p. 231, pl. 31, f. 34, 35, and pl. 32, f. 69.

Hab.—Western Port.

#### GIBBULA PREISSIANA, Philippi.

1848. Trochus preissianus, Philippi. Zeits. f. Malak., p. 123.

?1846. Trochus preissianus, Philippi. Conch. Cab., p. 177, pl. 28, f. 3.

1851. Gibbula porcellana, A. Adams. P.Z.S. Lond., p. 186.

1876. Trochus preissianus, Fischer. Icon. Coq. Viv., p. 245, pl. 83, f. 3.

1877. Gibbula weldii, T. Woods. P.R.S. Tas., p. 143.

1889. Minolia preissiana, Tryon. Man. Conch., vol. xi., p. 261, pl. 41, f. 29.

1889. Gibbula weldii, Tryon. Id., p. 236.

Hab.—Point Roadknight.

## GIBBULA SULCOSA, A. Adams.

1851. Gibbula sulcosa, A. Adams. P.Z.S. Lond., p. 186.

1889. Gibbula sulcosa, Tryon. Man. Conch., vol. xi. p. 243.

Hab.—Point Roadknight.

GIBBULA LEGRANDI, Petterd.

1879. Fossarina legrandi, Petterd. Jour. of Conch., vol. ii., p. 104.

Hab.—A rather common little species widely distributed along our coast.

Note.—We have another small species of this genus hitherto unidentified.

#### Minolia, A. Adams, 1860.

MINOLIA PHILIPPENSIS, Watson.

1881. Trochus (Solariella) philippensis, Watson. J.L.S. Lond., vol. xv., p. 92.

1886. Trochus (Solariella) philippensis, Watson. Chall. Zool., vol. xv., p. 73, pl. 6, f. 10.

1889. Minolia philippensis, Tryon. Man. Conch., vol. xi., p. 271, pl. 36, f. 15, 16.

Hab.—Off the entrance to Port Phillip, 33 fathoms, sand (Challenger).

MINOLIA TASMANICA, T. Woods.

1877. Margarita (Minolia) tasmanica, T. Woods. P.R.S. Tas., p. 143, No. 33.

1878. Minolia vectiliginea, var. (?), T. Woods. T.R.S. Vic., vol. xiv., p. 59.

1889. Minolia tasmanica, Tryon. Mau. Conch., vol. xi., p. 263, pl. 61, f. 38, 39, 40.

Hab.—Port Phillip.

Obs.—The Victorian specimens of this species are usually considerably larger than the Tasmanian type. The incorrect spelling and naming of Menke's species by T. Woods is worthy of note, and in his paper to the Royal Society of Victoria he regarded the Victorian shell as a probable variety. This and other species dealt with by him were presented to the National Museum, Melbourne, and this no doubt accounts for the fact that this shell is labelled type in that institution. We are perfectly satisfied that Menke's shell, M. vitiliginea, though of similar aspect from above, differs in its umbilical characters and in its more solid development. We have examples of Menke's species before us from Western Australia.

### Genus Calliostoma, Swainson, 1840.

#### CALLIOSTOMA MEYERI, Philippi.

- 1848. Trochus meyeri, Philippi. Zeits. f. Malak., p. 101.
- 1849. Trochus meyeri, Philippi. Conch. Cab., p. 279, No. 362, pl. 41, f. 4.
- 1854. Trochus levis, Hombron and Jacquinot. Voy. au Pole Sud, vol. v., Zool., p. 56, mollusca, pl. 14, f. 17, 18.
- 1863. Zizyphinus armillatus, Reeve. Conch. Icon., vol. xiv., pl. 3, f. 19.
- 1876. Trochus meyeri, Fisher. Icon. Coq. Viv., p. 76, pl. 17, f. 2.
- 1887. Trochus (Zizyphinus) meyeri, Brazier. T.R.S. S.A., vol. ix., p. 121.
- 1888. Calliostoma meyeri, Tryon. Man. Conch., vol. x., pl. 41, f. 35.
- 1889. Calliostoma meyeri, Tryon. Id., vol. xi., p. 336.

Hab.—Commonest in Western Port; also Puebla; Warrnambool; Portland (Maplestone); Anderson's Inlet (W. H. Ferguson).

## CALLIOSTOMA TINCTUM, Watson.

- 1886. Trochus (Zizyphinus) tinctus, Watson. Chall. Zool., vol. xv., p. 63, No. 20, pl. 17, f. 2.
- 1889. Calliostoma tinetum, Tryon. Man. Conch., vol. xi., p. 353, pl. 16, f. 11, 11a.
- Hab.—Off East Moncoeur Island, Bass Strait, 38 fathoms, sand (Challenger).

# CALLIOSTOMA POUPINELI, Montrouzier.

- 1854. Zizyphinus comptus, A. Adams (non Philippi). P.Z.S. Lond., p. 38.
- 1863. Zizyphinus comptus, Reeve. Conch. Icon., vol. xiv., pl. 7, f. 48.
- 1875. Trochus (Zizyphinus) poupineli, Montrouzier. Jour. d. Conch., p. 40, pl. 4, f. 6.
- 1876. Trochus poupineli, Fischer. Icon. Coq. Viv., p. 387, pl. 116, f. 3.

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1889. Calliostoma poupineli, Tryon. Man. Conch., vol. xi., p. 350, pl. 17, f. 41.

1894. Calliostoma purpureo-cinctum, Hedley. P.L.S. N.S.W., vol. ix., pt. 1, p. 35.

Hab.—Western Port.

#### CALLIOSTOMA ALLPORTI, T. Woods.

1876. Trochus (Zizyphinus) allporti, T. Woods. P.R.S. Tas., p. 155.

1889. Calliostoma allporti, Tryon. Man. Conch., vol. xi., p. 351, pl. 66, f. 22.

Hab.—Off Rhyll, Western Port, dredged from about six fathoms; Puebla Coast.

#### CALLIOSTOMA INCERTUM, Reeve.

1863. Zizyphinus incertus, Reeve. Conch. Icon., vol. xiv., pl. 5, f. 28.

1875. Zizyphinus incertus, T. Woods. T.R.S. Tas., p. 41.

1889. Calliostoma incertum, Tryon. Man. Conch., vol. xi., p. 351, pl. 17, f. 37, and pl. 65, f. 83.

Hab.—San Remo, Western Port.

### CALLIOSTOMA LEGRANDI, T. Woods.

1876. Zizyphinus legrandi, T. Woods. P.R.S. Tas., p. 154.

1889. Calliostoma legrandi, Tryon. Man. Conch., vol. xi., p. 350, pl. 66, f. 23.

Hab.—Off Rhyll, Western Port, dredged from about five fathoms.

### CALLIOSTOMA NOBILE, Philippi.

(?) 1846. Trochus nobilis, Philippi. Conch. Cab., p. 86, pl. 15, f. 6, and pl. 38, f. 1.

1863. Zizyphinus nobilis, Reeve. Conch. Icon., vol. xiv., pl. 2, f. 10.

1876. Trochus nobilis, Fischer. Icon. Coq. Viv., p. 309, pl. 98, f. 2.

1878. Zizyphinus nobilis, Brazier. P.L.S. N.S.W., vol. ii., p. 44.

1889. Calliostoma nobile, Tryon. Man. Conch., vol. xi., p. 349, pl. 15, f. 47, 48.

Hab.—West Head, Western Port.

Calliostoma, n. sp.

Hab.—Western Port.

#### Genus Astele, Swainson, 1855.

#### ASTELE SUBCARINATA, Swainson.

1854. Astele subcarinata, Swainson. P.R.S. Van Diemen's Land, vol. iii., p. 36, pl. 6, f. 1, 2.

1863. Eutrochus perspectious, A. Adams. P.Z.S. Lond., p. 506.

1877. Astele subcarinatus, T. Woods. P.R.S. Tas., p. 39.

1889. Calliostoma (Eutrochus) adamsi, Pilsbry. Man. Conch., vol. xi., p. 402.

1893. Astele subcarinata, Brazier. P.L.S. N.S.W., 2nd ser., vol. viii., pt. 1, pp. 107-110. Figured in text by C. Hedley.

Hab.—Western Port, San Remo.

## Genus Euchelus, Philippi, 1847.

## EUCHELUS BACCATUS, Menke.

1843. Monodonta baccata, Menke. Moll. Nov. Holl., p. 14, No. 51.

1846. Trochus aspersus, Koch. Zeits. f. Malak., p. 103, No. 23.

? 1846. Trochus baccatus, Philippi. Conch. Cab., p. 173, No. 208, pl. 27, f. 13.

1851. Monodonta baccata, A. Adams. P.Z.S. Lond., p. 174, No. 9.

1865. Euchelus baccatus, Angas. P.Z.S. Lond., p. 179, No. 147.

1867. Euchelus baccatus, Angas. *Id.*, p. 215, No. 180.

1876. Trochus baccatus, Fischer. Icon. Coq. Viv., p. 292, pl. 94, f. 2, and pl. 115, f. 1.

1886. Trochus (Euchelus) baccatus, Watson. Chall. Zool., vol. xv. p. 53, No. 7. 1889. Euchelus baccatus, Tryon. Man. Conch., p. 435, pl. 62, f. 72, 73.

Hab.—Moderately common all along the coast.

Obs.—This species shows variation in form and coarseness of sculpture, occasional very elongate or even scalariform specimens being obtainable.

### EUCHELUS SCABRIUSCULUS, Angas.

1867. Euchelus scabriusculus, Angas. P.Z.S. Lond., p. 215, No. 181.

1876. Trochus scabriusculus, Fischer. Icon. Coq. Viv., p. 374, pl. 114, f. 2.

1889. Euchelus (Herpetopoma) scabriusculus, Tryon. Man. Conch., vol. xi., p. 435, pl. 48, f. 12.

Hab.—Sandringham, Sorrento, Port Phillip.

Obs.—Tryon states that there was no description accompanying the name given by Messrs. Adams and Angas, and we have not been able to find any either. In Angas' list of 1867 in P.Z.S., this species is numbered 181, and marked with an asterisk, which meant that the species had been described from specimens in his own collection. Presumably this refers to the few brief particulars given by himself in the list, yet he gives the name E. scabriusculus, A. Adams and Angas, M.S., in Cuming Collection. Angas's own brief description is "a very small species differing from E. baccatus in its cancellated sculpture, and being umbilicated. Under stones, Port Jackson. Length, 2 lines,"

### EUCHELUS TASMANICUS, T. Woods.

1876. Euchelus tasmanicus, T. Woods. P.R.S. Tas., p. 152.

1877. Fossarus tasmanicus, T. Woods. P.R.S. Tas., p. 148.

1880. Fossarus tasmanicus, T. Woods. P.R.S. Tas., p. 70.

1889. Euchelus tasmanicus, Tryon. Man. Conch., vol. xi., p. 436.

Hab.—Cape Schanck; Western Port; Puebla.

Obs.—T. Woods admits his own mistake as above indicated.

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EUCHELUS ATRATUS, Gmelin.

?1789. Turbo atratus, Gmelin. Syst. Nat., vol. xiii., p. 3601, No. 53.

1822. Monodonta canaliculata, Lamarck. Anim. S. Vert., vol. vii., p. 37, No. 20.

1888. Euchelus atratus, Tryon. Man. Conch., vol. x., pl. 41, f. 25.

1889. Euchelus atratus, Tryon. Id., vol. xi., p. 439.

Hab.—Portland (Mrs. A. Kenyon).

Obs.—Our shell agrees exactly with f. 25 given by Tryon, but the other figures given by him are not so satisfactory.